

CONTRIBUTIONS TO A KNOWLEDGE OF THE SUB-FAMILIES *OENOCHROMINAE* AND *HEMITHEINAE* OF *GEOMETRIDAE*.

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THE Geometrid subfamilies treated of in this paper have already undergone a preliminary revision at my hands (*Genera Insectorum*, fasc. 104, 1910, and 129, 1912), but insufficiency of material, lack of time or occasion for real monographic work, and various other circumstances made it impossible to avoid a number of uncertainties and even errors in matters of detail. Moreover, many new species and forms have recently been discovered, in particular among a rich collection made at Mt. Goliath, 5000—7000 ft., Central Dutch New Guinea (about 139° E. long.), by Mr. A. S. Meek. I therefore take this opportunity not only to describe the novelties but also to introduce various notes and corrections concerning earlier work.

As I hope shortly to publish a catalogue of the *Hemitheinae* in the "Lepidopterorum Catalogus," it is not necessary here to refer to discoveries of synonymy which need no particular comment, nor to give a list of the new species which have been published since the appearance of my work on the "Genera Insectorum"; but, with these exceptions, I shall endeavour to bring our knowledge as nearly as possible up to date in all essentials, deeming it a manifest advantage to have the whole within the same covers rather than spread over a number of detached notes. For this reason no fanciful limits have been prescribed, although the New Guinea Geometrids claim by far the largest share of attention.

SUBFAMILY *OENOCHROMINAE*.

1. *Dichromodes semicanescens* spec. nov.

♀, 18 mm. Head, with face, fuscous sprinkled with grey. Palpus fuscous, whitish at base. Thorax and abdomen concolorous with wings. Fore and middle legs and hindtarsus fuscous on upper side, narrowly pale-belted.

Forewing rather short and broad, apex not acute, termen bowed, not strongly oblique; mostly grey in basal part, cell and entire area posterior to M and M², with coarse fuscous irroration; basal part of cell and of costal area slightly mixed with light ferruginous-ochreous; stronger longitudinal patches of the same distally to cell, placed between SC⁵ and R² and between R³ and M¹, reaching as far as a dark fuscous border, which runs from costa to tornus, about 2 mm. wide anteriorly but narrowing to a point at tornus; first line fine, dark fuscous, indistinct, from a thick black spot at one-fourth costa; a thick black costal spot proximally to cell-spot, another distally to it; cell-spot black, continued with fuscous posteriorly along DC; postmedian line scarcely traceable.—*Hindwing* uniform fuscous, only the inner margin slightly paler, with indications of beginnings of lines.

Underside shining greyish fuscous, forewing only with somewhat darker border, hindwing with rather more brown tinge, rather less shiny, a dark discal spot and dark border.

Geraldton, West Australia (E. A. Saunders). Type in coll. Brit. Mus.

2. *Nearcha agnata* spec. nov.

♂, 35 mm. Face blackish. Palpus about twice diameter of eye; black, at base whitish. Antennal pectinations about as in *aridaria* Walk. Head, thorax, and abdomen concolorous with wings. Forefemur darkened; middle femur hairy (hind abraded); hindtibia with strong ochreous hair-pencil.

Forewing with apex prominent, termen waved, curved, oblique; pale ochreous grey with very sparse dark scales; first line obsolete; postmedian, as in normal *aridaria*, consisting of a curved row of black vein-spots, becoming small and less distinct costally, closely followed (except at costa) by a curved brown line; a small dark, pale-centred discal spot (smaller than in *aridaria*); terminal black dots rather larger than in *aridaria*; fringe strongly dark-chequered, remaining pale opposite the veins.—*Hindwing* slightly paler, with dark cell-dot before one-third and feeble grey, nearly straight line beyond middle.

Forewing beneath with cell-spot not pale-centred; no other markings. Hindwing beneath slightly hairy at base; hair-tufts ochreous, placed as follows: a moderate black-mixed tuft in front of vein C just before apex of cell, and a similar one, but not black-mixed, in front of M in the end of the cell; ridges along vein C from the tuft about half-way to the end of the vein, and on M and especially the base of R^3 ; a large tuft at the base of and for some distance along and between SC^2 and R^1 ; markings consist of a moderately large black cell-spot on DC^2 and a black spot at tornus; terminal spots and fringe as on forewing.

Perth, West Australia (U. M. Worsfold). Type in coll. Brit. Mus.

Belongs to Section I. (*Gen. Ins.* 104, p. 29), nearest *aridaria*, but differing in the arrangement of the hair-tufts as well as in some details of wing-shape and markings.

3. *Nearcha uncta* spec. nov.

♂, 33 mm. Face black. Palpus moderately long, black. Antenna two-thirds length of wing; shaft ochreous, pectinations long, blackish. Crown of head mixed ochreous and blackish, rather rough, projecting a small tuft anteriorly. Thorax and abdomen concolorous with wings. Legs long and slender, femora glabrous; whitish grey, more or less speckled with fuscous; forecoxa, femur, and tibia predominantly fuscous.

Forewing with costa very slightly curved at base and close to apex, otherwise straight, or almost concave; termen straight, oblique; very glossy blackish grey with a faint purplish reflection, costal edge narrowly ochreous; first line from one-fourth costa to one-third posterior margin, consisting of large white dots on veins and cell-fold; discal spot at beyond one-half, large, dark, but little conspicuous on the dark ground; postmedian wavy, brownish, at 3.5 mm. from termen, slightly incurved posteriorly, quite indistinct, but marked with sharp white dots on the veins, smaller than the antemedian series; a conspicuous pale, thick, regularly dentate subterminal line; distal margin tinged with blue-grey, with a conspicuous series of small black dots; fringe divided by a pale line beyond middle.—*Hindwing* with costa long, apex rounded-prominent, termen straight nearly to the rounded tornus; paler, unmarked, terminal dots as on forewing.

Under-surface almost unmarked, both wings with cell-spot indicated, forewing with a faint postmedian line, hindwing dark-speckled and strigulated.

Waroona, West Anstralia, May 27, 1909 (G. F. Berthoud). Type in coll. Brit. Mus., paratype in coll. G. Lyell, Gisborne.

Related to *pseudophaeus* Lower; very distinct in its very dark, very glossy coloration.

4. *Ophiographa postmarginata* spec. nov.

♂ ♀, 24–25 mm. Frontal protuberance rather less long than in *serpentaria*, ending, as in that species, in a long, curved, horny point. Head and thorax concolorous with forewing, mixed with dark fuscous. ♂ antennal pectinations long; ♀ hindtibia with terminal spurs only.

Both wings in ♂ with termen very feebly, in ♀ rather more (but still only slightly) subrennulate.—*Forewing* with termen strongly bowed, becoming very oblique; SC^{2-3} anastomosing (SC^2 at a point only) with SC^1 , M^1 well separate from R^3 , DC^4 rather more vertical than usual; pale reddish grey, mixed, especially in basal area, with red-brown, a sparser dusting of fuscous scales in the same area (and in the ♀ in the distal area); costal margin as far as first line more fuscous; first line fuscous, from costa at beyond two-fifths to posterior margin at about (or before) one-half, strongly dentate, the sharpest teeth on the veins and submedian fold, pointing proximad; second line crenulate, 2.5 mm. from termen, nearly parallel therewith, slightly incurved between R^1 and R^3 and in submedian area, in ♀ obscured by fuscous shading; cell-spot weak; terminal line fuscous, thickening between the veins; fringe whitish.—*Hindwing* with SC^2-R^1 connate; white with a small dark cell-dot, feeble sinuous postmedian line and a fuscous terminal shade, in the ♂ 1.5 mm. broad, but in the ♀ occupying half the wing, crossing the postmedian line; terminal line and fringe as on forewing.

Forewing beneath rather paler, almost unmarked, the postmedian indicated by a dark spot on costa, accompanied distally by a pale one. Hindwing beneath whiter than forewing, the cell-spot well marked, the postmedian and the terminal shade indicated, the former accompanied proximally by a small fuscous costal blotch.

Sherlock River, West Australia (E. Clements). Type (♂) and paratype in coll. Brit. Mus.

Evidently near *dilutaria* Warr.

5. *Lissocraspeda pygmaea* spec. nov.

♂, 20 mm. Head and palpus fuscous, more or less mixed with whitish, a bar on forehead blacker, vertex more strongly mixed with white; the strong frontal prominence ending in two small pointed processes. Antennal pectinations long. Thorax above fuscous, mixed with whitish; abdomen paler, with narrow fuscous belt at end of each segment. Legs mixed with fuscous and whitish.

Forewing fuscous, mixed with blackish, obscuring the markings; antemedian line blackish, only indicated as a short mark at about one-third costa; postmedian blackish, slender, sinuous, at about 2 mm. from termen, thickest and most distinct at costa, faintly traceable throughout, the inward curves between radials and in posterior half; terminal line thick, black, interrupted.—*Hindwing* white, dusted with fuscous near termen, with two fuscous spots or beginnings of lines at distal part of inner margin and a fuscous tornal blotch containing the darker beginning of a third line; an interrupted fuscous terminal line.

Forewing beneath much paler, darkest at costa and apex, unmarked; hindwing white, with coarse fuscous speckling costally, terminal line as above.

Sherlock River, West Australia (E. Clements). Type in coll. Brit. Mus.

6. *Homospora lymantriodes* spec. nov.

♂, 35 mm. Structure as in the type species (*rhodoscopa* Lower), but SC^1 of forewing anastomosing at a point with C, R^2 of hindwing more strongly approximated at its origin to R^1 ; wing slightly broader (less elongate) than in the only example of *rhodoscopa* before me. Head, body, and legs concolorous with wings, only the abdomen dorsally with bright golden-brown patch on basal segments, as in the type species.

Forewing very light, whitish brown with a tinge of fawn-colour, the costal edge with some small fuscous dots; two lines and central shade strongly expressed, fuscous; first line from before one-third costa to one-third hind-margin rather thick, excurved in cell, somewhat inangled on M and SM^2 ; median shade thick, placed very near second line; second line from three-fourths costa to near tornus, dentate outwards on all the veins, and very faintly incurved from R^1 to R^3 and from M^1 to SM^2 .—*Hindwing* whiter, with a weak postmedian line, accentuated by darker vein-spots, a vague fawn-tinged band proximal to it and some shading at apex.

Forewing beneath with first line obsolete, median shade faint, postmedian moderately developed; hindwing beneath not whiter than forewing.

Sherlock River, West Australia (E. Clements). Type in coll. Brit. Mus.

Texture and coloration somewhat recall some *Lymantriids*.

7. *Onycodes leptoctenopsis* spec. nov.

♂, 30 mm. Face crimson, mixed with fuscous, narrowly edged with fulvous beneath. Palpi fulvous, mixed with crimson. Vertex and antennal shaft bright fulvous or reddish fulvous. Thorax and abdomen concolorous with wings; pectus and forecoxa somewhat hairy. Fore- and midfemur and midtibia mixed with pink, foretibia and fore- and midtarsus fuscous above, both tibiae and tarsi with yellow spots, on the latter at ends of joints.

Wings fulvous-brown, with sparse dark dots and strigulae.—*Forewing* with costal edge narrowly bright fulvous, narrowly followed from base to perhaps one-fourth by a delicate pinkish shade; two small purplish-fuscous marks on costa, much as in *traumataria*, the first at two-fifths, somewhat rhomboidal, the second (a flattened triangle) midway between this and apex; a purple-fuscous line, oblique and slightly curved, from close before apex towards middle of posterior margin, closely accompanied proximally by a ferruginous brown line, which runs to the middle of the posterior margin and is continued (more overlaid with purplish) on the hindwing; some apical markings similar to those of *traumataria*, some ferruginous to fuscous wedges distally to the oblique line between the radials and anteriorly; fringe slightly darkened with ferruginous, purplish-fuscous at apex.—*Hindwing* without markings, except the line.

Underside fulvous without definite markings, a pinkish-white dash at apex of forewing, succeeded by a vague, pale, fulvous-brown, oblique line to middle of wing; costal edge of forewing clear bright fulvous, the rest of the wing irrorated with darker shades—dull reddish distally, brighter pink near posterior margin,

otherwise dull purplish-fuscos, posterior margin itself whitish; hindwing less irrorated, but with similar shades.

Mount Goliath, January—February 1911 (A. S. Meek). Type and three other ♂♂ in coll. Rothschild.

The wings are less produced apically than in the type species, scarcely longer than in the South American genus *Leptoctenopsis*, to which (e.g. to *L. subpurpurea* Warr.) the new species bears a curious superficial resemblance. In the forewing SC^3 anastomoses with SC^4 , as is normal in this group; in the hindwing SC^2 and R^1 are well stalked. Evidently variable; one specimen is of a lilacine colour, only weakly mixed with fulvous, the postmedian line rather faint, the distal wedge-marks large and very black.

8. *Gerusia polydaedala* spec. nov.

♂, 47 mm.; ♀, 56 mm. Face brown, narrowly whitish above and beneath. Palpus varied olivaceous grey, red and fulvous. Vertex and antennal shaft fleshy grey; collar and extreme front of thorax dark olivaceous grey, somewhat mixed with brown. Thorax and abdomen above pinkish grey, with a slight violaceous tone and with a few dark atoms; thorax beneath very pale olivaceous grey; abdomen in ♀ very robust, beneath fulvous somewhat mixed with ferruginous. Forecoxa, inner side of forefemur, middle- and hindfemora and tibiae fulvous, spotted and blotched with red.

Wings in ♂ with termen irregularly crenulate, especially the hindwing, which projects about R^3 and M^1 and bears the strongest tooth at R^3 ; in ♀ almost entire-margined, the forewing (as in ♂) with slight curved excision behind apex, then strongly gibbous, hindwing only very weakly undulate. Forewing with SC^4 anastomosing with C (at a point in ♂, rather strongly in ♀); hindwing with C in ♂ normal, in ♀ closely appressed to SC, but not anastomosing.

Coloration exceedingly variegated.—*Forewing* with the prevailing tone fleshy- or somewhat violet-grey, with some dark dusting (especially in the ♂), basally and distally somewhat paler than in the intermediate area, in the ♀ (especially distally) slightly more yellowish-tinged; a small dark discal spot; antemedian dark line indented on SC and the submedian fold, excurved between, oblique outwards to posterior margin (in ♀ nearly obsolete, excepting the posterior end); two thick, ill-defined red-brown lines from costa, the first (median) starting at two-fifths, running very obliquely to posterior angle of cell, here bent at a right-angle, but becoming almost obsolete, vaguely traceable again as a blotch at posterior margin: postmedian starting similarly obliquely to R^1 , where it forms an acute angle, becomes fine, black, and denticulate, and runs about parallel with termen as far as submedian fold, finally again brown and outbent to posterior margin; in the ♀ only, an oblique line, black at first, then brown, runs from apex and closely accompanies the postmedian distally; apical region somewhat dark-clouded, a white subapical spot between SC^5 and R^1 , in the ♂ extended to costa near apex as an interrupted white line, in the ♀ merely accompanied anteriorly by a minute white dot; twin black subterminal spots on either side of R^2 .—*Hindwing* still more brightly variegated; prevailing tone in the cell ochreous, somewhat marked with reddish, a small blotch of the same on R^2 submarginally, and a paler one near tornus; between cell and SM^2 whitish, coarsely spotted with olive-grey; inner margin in ♀ reddish, in ♂ whiter, in both marked with fuscous; a small dark cell-spot and two thick transverse lines of reddish-grey or olive-grey at equal

distances proximally and distally to it, the latter in the ♀ nearly lost in olive-grey clouding which follows it, occupying much of the distal part of the wing; in the ♂ the grey clouding is chiefly confined to the tornal half of the area; apex and extreme tornus mostly pinkish in the ♀, pale in the ♂, distal area about the medians rather violet-grey than olive-grey, and containing two small red-brown blotches (large spots).

Under-surface with the colouring somewhat similarly arranged, but stronger and brighter, the distal area of the hindwing in the ♀ largely, in the ♂ in tornal half rufous; both wings with small black submarginal spots on either side of R^2 and hindwing with one between M^2 and submedian fold; ♂ forewing with the pencil of dark hairs which characterises the typical section of *Gerusia*.

Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3500 ft., November 1908—January 1909, ♂ (type) and ♀ in coll. Rothschild.

There is no room to doubt that these are sexes of a single species, but the differences in shape, and especially in hindwing venation, are very curious and very disturbing taxonomically. They render my sectional arrangement of the genus (*Gen. Ins.* 104, p. 54) untenable, for the ♂ would fall into Section I., the ♀ into Section III. The general coloration and effect of the upperside are remarkably suggestive of the Australian *excusata*, which is intermediate in shape between the sexes of *polydaedala*, has a less brightly coloured underside, and lacks the pencil of hairs. The other Australian species, *multicolora* Lucas, is also near; in it and *polydaedala*—the only two of which I have seen the sex—the ♀ has shortly pectinate antenna and a stronger anastomosis of SC^1 of the forewing than I indicated in my diagnosis: but *multicolora* is normal in the anastomosis of C of the hindwing.

As ab. *maculata* ab. nov. I describe a form with a black blotch in the submedian area of the forewing distally to the postmedian line. Mount Kebea, British New Guinea, 3000 ft., July 1903 (A. E. Pratt) 2 ♂♂ in coll. Bethune-Baker. As these two entirely agree, and have also a slightly less brightly variegated underside than the type form, it is just possible that they represent a local race; but the known inconstancy of these dark blotches, and especially the exact analogy of the allied *G. virescens* Warr. and ab. *viridimacula* Warr. (*Nor. Zool.* xiv. p. 120), render it most probable that they will prove to represent an aberration only.

9. *Sarcinodes subfulvida* ab. *flaviplaga* ab. nov.

♂. Bright liver-coloured, but distinguished from the hitherto described forms in having a large patch of yellow occupying a great part of the distal half of forewing; this starts at the end of the cell, with an irregular proximal boundary (encroached upon by the ground-colour in the posterior angle of cell) and extends, in its longer measurement, from close to the apex to SM^2 ; distally it projects roundly into the ground-colour on the medians and just behind R^3 , and comes nearer the termen (about 2-3 mm.) in anterior half, while it is almost connected between the radials with a second, but less pure yellow terminal patch which extends from R^1 to M^1 . Hindwing with ill-defined yellow patch in centre. Postmedian line in both wings very fine and yellow, on forewing accompanied proximally by small blackish vein-dots.

Near Octakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type in coll. Rothschild.

10. *Corium iridoptera* spec. nov.

♂ ♀, 28–31 mm. Similar to *hyperphyes* Prout, *Ann. Mag. Nat. Hist.* (8) viii. p. 704, but smaller; forewing similarly shaped, the apex acutely produced, hindwing with termen more convex. Structure about as in *hyperphyes*, of which the British Museum now possesses, in addition to the type, a ♂ and ♀ from Aberdare Mountains, British East Africa (7000–8500 ft., S. A. Neave). Antennal ciliation in ♂ very short (less than one-half diameter of shaft) and even; ♂ hindtibia with short hair-pencil from femoro-tibial joint; ♂ abdomen basally clothed beneath with strong brown hairs, which are not observable in *hyperphyes*.

Bluish white, with very strong iridescence; discal and terminal dots small, the latter in particular strikingly different from the large bold dots of *hyperphyes*; antemedian and postmedian series of dots rather weak, the postmedian less incurved posteriorly than in *hyperphyes* and less prolonged into dashes; costal margin of forewing scarcely tinged with grey; terminal grey line (which in *hyperphyes* thickens at the vein-ends) very fine and sometimes almost obsolete.

British East Africa, the ♂ (type) and 2 ♀ ♀ from N. Kavirondo, Nasiri Hills, 4800 ft., June 14, 1911 (S. A. Neave) in coll. Brit. Mus. A pair from south and east slopes of Mount Kenya, 5000–7000 ft., February 8, 1911, are probably conspecific, but measure 34–37 mm., and the ♂ abdomen beneath is dark-haired throughout.

11. *Callipotnia angulifera* spec. nov.

♂ ♀, 42–45 mm. Rather larger than *multicolor* Warr., *Nov. Zool.* vi. p. 323.

Forewing with distal margin slightly more oblique, the wing thus appearing more pointed at apex; colour somewhat warmer brown (especially in the ♂, which at the same time is more sprinkled with fuscous), postmedian line uninterrupted, usually rather more pointed (in *multicolor* rounded) at R^3 , from thence to posterior margin forming a gentle, regular inward curve; its colour deeper, more ferruginous, accompanied distally by a fine yellowish line; no round dark spot on posterior margin.—*Hindwing* also with a continuous, similarly coloured and similarly accompanied postmedian, which is right-angled on R^3 , thence nearly straight in both directions.

Under-surface dull reddish, strongly suffused with olive-grey, thus much more sombre than in *multicolor*; markings obsolete excepting a discal spot and postmedian line, the latter on forewing much less projecting in middle, on hindwing more angled in middle, than in *multicolor*; ♂ hair-tuft coloured as in *multicolor*.

Near Octakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October–December 1910 (A. S. Meek). Type (♂) in coll. Rothschild. Also a pair from the Upper Setekwa River, in the same district, 2000–3000 ft. August 1910, in coll. Rothschild.

12. *Celerena remutata* spec. nov.

♀, 62 mm. Probably related to *mutata* Walk., *List Lep. Brit. Mus.* xxxi. p. 167, but with the dark border of both wings reduced to about the extent of that of *mitis* Warr., the oblique dark band from midcosta of forewing not joining the border near tornus but separated by a small space of the ground-colour as in *triflora* Warr. From both *mitis* and *triflora*, *remutata* differs in the rather less deep golden ground-colour and less black borders (varied with grey as in *mutata*, etc.)

with less crenulate proximal edge ; from the former also in the separation of central band from tornus, and from the latter in the absence of subapical yellow patch.

Monut Kebea, British New Guinea, 3000 ft. July 1903 (A. E. Pratt). Type in coll. Brit. Mus.

Cartaletis Warr.

My division of this genus into sections (*Gen. Ins.* 104, pp. 100–101) is not quite correct. "Section II.—Build slender," etc., should stand at the **top** of p. 101 ; *forbesi* and *concolor*, which Warren placed in *Cartaletis*, certainly belong to his *Leptaletis*, i.e. the slender section. Indeed Butler's **type** of *variabilis* (the name-type of *Leptaletis*) seems conspecific with *concolor* ; the *ampliflura* forms may possibly represent a separate species, and so may the redder *forbesi* Druce, but material which is accumulating seems to indicate that we are dealing with one polymorphic species, as is also believed to be the case with *C. libyssa* = *monteironis* = *ethelinda*.

13. Cartaletis libyssa euparypha subsp. nov.

♂ ♀, 60–66 mm. Slightly larger than the typical eastern race, somewhat brighter fulvous (less reddish), the white spots on the thorax more strongly developed, marginal band of forewing somewhat differently shaped, its proximal edge being more strongly curved or even bent in the middle ; submarginal spots of both wings purer, less creamy white, the subapical of forewing narrower, one or two additional spots behind M², the entire series on the hindwing larger than in the type form.

Congo, without more exact locality. Type (♂) and paratype in coll. Brit. Mus.

14. Paraptychodes perfulva spec. nov.

♂, 33 mm. Differs from the type species (*tenuis* Btl.) in having the subapical blotch of the forewing fulvous, not white. The yellowish-fulvous face has a larger and deeper black spot on the upper part than in any specimen of *tenuis* before me ; the abdomen is as bright fulvous as the wings, not more whitish, as is usually the case in *tenuis*. Wings narrow, hindwing with a strong inner-marginal fold, reaching nearly to M and M², and mixed with black on the upper surface. Unfortunately I am only able to compare ♀ ♀ of the type species.

Witu, British East Africa, February 28, 1912 (S. A. Neave). Type in coll. Brit. Mus.

A ♀ much larger (54 mm.) from Mozambique (coll. Brit. Mus. ex coll. Distant) agrees in the fulvous subapical patch, but differs in that this reaches the costal margin, the narrow black costal edging of the forewing failing entirely, though there is a small black mark at base and another at before one-third, and the hindwing has a complete, though rather narrow, black distal border, into which the ground-colour projects somewhat between the veins ; upper part of face not black.

15. Paraptychodes costimaculata spec. nov.

♀, 61 mm. Head fulvous, with a broad black band across upper part of face and a large black spot in middle of vertex. Palpus black, first and second joints fulvous beneath. Antenna thick, black, closely lamellate, without the short pectinations of *tenuis*. Thorax fulvous, broadly black mediodorsally and mixed with black beneath. Abdomen fulvous above, whitish yellow beneath ; belted with black at ends of segments.

Wings fulvous.—*Forewing* marked with black at the extreme base and along costa for 2 or 3 mm.; a black spot extending 2 or 3 mm. on costa at nearly one-third; a black apical patch of about the same extent as in *tenuis*, containing a more extended and irregular white patch than that species, the black remaining only as: a broad oblique band from costal margin half-way to posterior margin, constricted at end of cell by a triangular encroachment of the ground-colour, a moderate apical patch continued to beyond M^2 as a rather narrow distal band, and a projecting prong from this latter along M^1 to near the costal band.—*Hindwing* with a narrow black border, broadest at apex, its posterior half consisting of three large, somewhat round-edged blotches whose centres lie on veins R^3 , M^1 and M^2 , and which are only very narrowly connected on the margin itself.

Under-surface the same.

Ndzooimi, Lagos district, Southern Nigeria, June 10, 1911 (W. A. Lamborn). Type in coll. Oxford Museum.

Colour and structure (except antenna) as in the East African *tenuis* Butl.; a pair of short median spurs present on the hindtibia.

16. *Ergavia costimaculata* spec. nov.

♂, 50 mm. Antenna pectinate, the branches very short—only about the length of diameter of shaft. Hindtibia with a single spur.—*Forewing* without areole, both wings with DC^3 strongly incurved, M^1 separate. Head, body and wings light wood-brown, marked with dark reddish-brown. Face, palpus, antennal shaft and dorsum of abdomen coarsely spotted; vertex, thorax and wings clearer, except front of thorax, which is wholly dark.

Forewing with the usual raised black cell-mark; a large costal blotch at base, reaching nearly to first line, a triangular one from first line to cell-spot and a smaller subapical; lines black, the first from costa beyond one-fourth, forming a very strong outward curve in cell, and a strong outward angle on SM^2 , thick from costa to mid-cell, thick-spotted at base of M^2 , in fold and on SM^2 , otherwise very indistinct; second line weak in parts, starting from a blackish spot on costa, following about the same course as in most of the genus, thick on most of the veins; subterminal line pale, dentate, extremely indistinct except against the subapical blotch, on either side of R^2 , where it is accompanied proximally and distally by dark spots, and behind M^2 , where it is similarly accompanied; termen with large dark dots between the veins; fringe irregularly dark-spotted.—*Hindwing* with the raised discal mark black; the black postdiscal line stronger than on forewing, with slight tooth outward on C, two stronger, even ones on SC^2 and R^1 , a regular sinus between the radials and blunt teeth at R^3 and M^1 ; traces of a much weaker, irregular, diffuse brown line nearer base, crossing end of cell; the area between the two lines, except costally, filled up with red-brown; some dark spots proximally to the very faint subterminal line in costal half of wing and between M^2 and margin.

Underside of forewing suffused with reddish, postdiscal line of both wings traceable, chiefly by dark vein-dots, that of forewing distinct from M^2 to margin; both wings with small black cell-mark and with the subterminal blotches present.

Allianca, below S. Antonio, Rio Madeira, November—December 1907 (W. Hofmanns). Type in coll. Rothschild.

Like *drucei* Schaus, but with pectinations less than half the length.

SUBFAMILY HEMITHEINAE.

17. *Pingasa multispurcata* spec. nov.

♀, 36–39 mm. Face broadly black above, narrowly whitish below. Palpus two and a half times diameter of eye, pale, dark-mixed above. Thorax and abdomen concolorous with wings. Foreleg strongly, middle and hindleg slightly fuscous above, with the ends of the joints remaining pale.

Wings above similarly coloured to *tephrosiaria* Guen., but much more heavily dark-sprinkled, antemedian line much less strongly outcurved, postmedian less deeply dentate.—Hindwing with the raised scales almost wanting.

Under-surface white, slightly more dusted than in *tephrosiaria*, the discal marks, at least on forewing, strong, subterminal band on both wings narrow, not connected with termen by dark shading between the radials; on forewing continuous or nearly so, constricted or slightly interrupted at the veins, on hindwing much narrowed or interrupted at costa and about R^3-M^1 , broadened between the radials.

Rawal Pindi (type), Campbellpur, July 25, 1886 (paratype), both in coll. Brit. Mus.

A distinct little species, hitherto apparently overlooked. Although both examples are in good condition they show scarcely a trace of the tufts of raised scales on the hindwing, but they are in every other respect absolutely typical *Pingasa*.

18. *Pingasa alba brunnescens* subsp. nov.

Differs from the type form (*Pingasa alba* Swinh., *Tr. Ent. Soc. London*, 1891, p. 491) in having the upper surface coarsely sprinkled throughout with light ochreous-brownish; postmedian line rather thick, intensely black. On the under surface the postmedian is also discernible, blackish, the broad band which follows it usually more tinged with brownish or smoky, hence distinctly differentiable, only in the pair in coll. Wileman merged with the line.

Gifu, 1886, 2 ♂♂ 2 ♀♀ (ex coll. Pryer); Ningpo, July 1886, 1 ♀; all in coll. Brit. Mus. Himi (?), Iyo, June 29, 1896, 1 ♂ 1 ♀ in coll. Wileman.

This is the *Pseudoterpnia alba* of Leech (*Ann. Mag. Nat. Hist.* (6) xx. p. 228), but although both he and I (*Seitz Macrolep.* iv. p. 10) noticed the colour variation, it has not yet been registered as a subspecies. After examining all the material accessible to me I am, however, convinced that the differences are constant. Some examples (chiefly ♀) are more darkened than others, the Ningpo and Iyo examples in particular. The latter two have the band beneath very broad and black, almost reaching the termen.

19. *Pingasa nobilis* spec. nov.

♂, 56 mm. Face ochreous, without dark bar above. Palpus paler, beneath white, proportions as in *uginaria* Guen. Vertex white tinged with grey. Thorax white, above tinged with grey; abdomen white, dorsally sprinkled with ochreous, crests small, slightly ochreous, minutely black on either side, anal tuft and tuft at base of abdomen beneath ochreous. Hindtibia strongly dilated, without terminal process, tarsus barely over three-fifths tibia.

Wings shaped as in *uginaria*, white, somewhat purer than in that species; the speckling mostly grey, mixed with red at inner margin of hindwing.—Forewing with first line blackish, at costa thick, deep velvety black, its course as in

the allies, the angle on submedian fold acute; discal mark normal, elongate; both wings with postmedian line formed about as in *rufofasciata* Moore, but thicker, distal area deep purple-grey, as in the darkest *ruginaria*, leaving a white midterminal blotch on both wings.

Under-surface nearly as in *ruginaria*, the basal yellow shading more restricted, on forewing slight except along costal margin.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type in coll. Rothschild. Also Haidana, Collingwood Bay, April 1907, and a short series from Kumasi River, British New Guinea, at low elevation, May, August and September 1907, all in coll. Rothschild.

Differs from *chlora*, *ruginaria*, etc., in the more ochreous, not black-banded face, and in having the postmedian line neither deeply dentate nor in its middle outcurved. In all these respects nearest the Assam form of *rufofasciata* Moore, which is smaller, the darker borders of a totally different colouring, the underside with more yellow, etc. The teeth in the postmedian line are moreover really more intermediate towards those of *chlora*, and that on SM² of the forewing is rather pronounced.

20. *Pingasa victoria* spec. nov.

♀, 46–47 mm. Shape and structure of *chlora* Cram. (palpus 3.5 mm. long, third joint fully 1.5 mm.). Face black in upper half, whitish ochreous in lower. Palpus white beneath, more tinged with ochreous above. Vertex, thorax and abdomen concolorous with wings. Fore- and middle-legs blackish above and on inner side, spotted with white at the ends of the joints.

Wings coloured as in the coldest (least red-mixed) *chlora*; lines rather fine, grey-blackish, on forewing arising from deep black costal spots; first (on forewing only) at 5.5 mm. from base, only very gently outcurved in cell and submedian area; postmedian of forewing from costa at 12 mm., running somewhat outwards to R³ 5 mm. from termen, the tooth on R¹ slight, that on R² extremely slight or wanting, teeth on R³ and M¹ equidistant from termen, those of M² and SM² slightly farther from it (a very slight proximal curve of the line in its posterior part); postmedian of hindwing approximately parallel with termen, except near apex, the teeth quite moderate, the proximal curve between the radials slighter than in *chlora*, the tooth on R² minute or wanting.

Under-surface white, both wings with rather narrow black distal band, that of forewing leaving a white spot at apex and white band from R³ and not quite reaching posterior margin; that of hindwing leaving narrow, irregular marginal band, nearly or quite interrupted by the black about R²; forewing with small black cell-mark, hindwing without.

Victoria Falls, Rhodesia, February 16, 1911 (L. A. Sabine). Type in coll. L. B. Prout. A second example from Barberton, Transvaal (L. de Beer) in coll. A. J. T. Jause, Pretoria.

Distinguished by the little outcurved antemedian line and the outward sweep in the middle of the postmedian of the forewing.

21. *Hypodoxa fulgurea* spec. nov.

♂ ♀, 46–54 mm. Face olivaceous ochreous, darker mixed below. Palpus mixed olivaceous and fuscous above, reddish mixed with white beneath. Thorax

and abdomen above concolorous with wings, beneath (and on sides of abdomen) bright golden yellow, the breast pink.

Wings very varied with pink, white and blue-grey scales, and in places with olive-ochreous; lines and some costal spotting on forewing black.—*Forewing* with a line close to base, obsolete costally, outangled on M and SM²; antemedian from two-sevenths costa to near one-third of posterior margin, indented on veins, excurved between; postmedian from nearly two-thirds costa to beyond middle of posterior margin, commencing about vertically, very gently incurved between the radials, markedly toothed on R³ and M¹, then retracted basewards but with a further tooth on M², approximately parallel with antemedian (3—4 mm. distant from it) from behind M² to posterior margin; discal mark elongate, ill-defined; subterminal line whitish, consisting of a series of long teeth; terminal line black, slightly interrupted anteriorly; between the basal and antemedian lines there is an ill-defined whitish band; proximally to the antemedian and distally to the postmedian (especially in the ♂♂) narrow, ill-defined olive-ochreous bands, and some similar shading appears in the distal area, especially in the middle.—*Hindwing* with the postmedian, subterminal and terminal lines, the first-named narrowly followed by *whitish*; distal area as on forewing; tufts of raised scales mostly dark grey; abdominal margin and its fringe bright golden yellow.

Underside of forewing mostly pink in proximal half, costally olive-ochreous or bright yellow, a large roundish black discal spot, followed by a small white patch; a velvety blackish, violet-mixed distal band, leaving free a small pale apical space. Hindwing beneath bright golden yellow in proximal half, then narrowly white, distally broadly blackish, less intense and more mixed with violet terminally.

The sole ♀ before me, besides its larger size, is characterised by a much stronger admixture of blue-grey above (here almost black), especially between postmedian line and termen, though leaving on forewing a pale apical patch.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type ♂ and a ♀ in coll. Rothschild. Also a ♂ from the Upper Setekwa River, September 1910, in coll. Rothschild, and one from Mount Kebea, British New Guinea, 3600 ft., July 1903, in coll. Bethune-Baker.

Resembles the *purpurifera* form of *emiliaria* Guen.; termen of forewing slightly more oblique, under-surface of forewing with the purple mostly replaced by pink, the subcostal yellow colouring restricted; under-surface of hindwing without discal spot, the yellow generally restricted, a better developed white band intervening before the black border.

22. *Hypodoxa multicolor* ab. *circumsepta* ab. nov.

♀. Differs from Warren's type (*Nox. Zool.* vi. p. 17) in having the ground-colour slightly paler, the forewing beyond the postmedian line and nearly the whole of the hindwing suffused with dark purple-brown or red-brown; on the forewing a patch at apex, one on mid-termen and a small one at torus remain of the ground-colour; on the hindwing one at mid-termen and a smaller one at torus, also a part of the patch of raised scales.

Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3500 ft., November 1908—January 1909 (type); near Oetakwa River, Snow Mountains, Dutch New Guinea, October—December 1910; both in coll. Rothschild,

Probably only a recurrent aberration, as I have seen virtually typical *multi-color* ♂ from the Ninay Valley, but possibly a prevailing race in Dutch New Guinea.

23. *Hypodoxa leprosa incarnata* subsp. nov.

♂ ♀. Differs from typical *leprosa* Warr. (*Nor. Zool.* xiv. p. 124) in the ♀ being entirely deprived of green coloration. The paler parts (subbasal and median areas of forewing and parts of the distal area of both wings) are of the same pinkish white shade ("pinkish ochreous" of Warren's description) as the costal half of the median area of the hindwing. The blackish band-like markings proximally to the first line and distally to the second look rather more purple and less heavy than in the type form. Under-surface of forewing rather brighter pink than in the type form, the distal blackish area not quite so broad. The colour of the head and body is similarly changed, the face pinkish above, bright orange below, not crossed, as in *leprosa leprosa*, by a blackish bar.

The ♂ differs much less from the type form, preserving a general green tone though much more mixed with pink; face with traces of a **rufous** bar in the position occupied by the blackish bar of the type form; the dark markings heavier than in the ♂ *leprosa leprosa*, the pale patch in the hindwing of ♀ *leprosa leprosa* also suggested.

Mount Goliath, January 1911 (A. S. Meek). Type (♀) and paratypes (1 ♂, 2 ♀ ♀) in coll. Rothschild, the ♀ ♀ quite uniform in appearance.

24. *Hypodoxa lichenosa rufomixta* subsp. nov.

♂ ♀. Both sexes more mixed with rufous than in typical *lichenosa* Warr. (*Nor. Zool.* xiv. p. 124). In the ♂ this rufous admixture is most apparent in the median area: longitudinal clouds, on the forewing across the cell-spot and posteriorly to vein M, on the hindwing across cell-spot. In addition all the purple-fuscons marks are intensified and slightly sprinkled with rufous, and there is a more distinct whitish-green line or narrow shade distally to the postmedian. In the median area of the hindwing of the ♀ (which, as in the type form, is broadly hoary) the increase of rufous is very apparent (excepting a narrow hoary band proximally to the raised scales), also in a subbasal band of the forewing, as well as a brightening of the ordinary dark markings. Underside nearly as in the type form, but without yellow admixture at base and abdominal margin of hindwing.

Mount Goliath, February 1911 (A. S. Meek), type (♂) in coll. Rothschild. The ♀ (slightly worn) is from the same locality in January.

25. *Hypodoxa ruptilinea* spec. nov.

♀, 55 mm. Head and palpi ochreous, tinged with greenish, face mixed with red-brown and fuscons scales. Antenna ochreous to beyond one-fourth. Thorax above red-brown varied with olive, in front chiefly olive and whitish, ends of tegulae mostly olive; beneath mostly greenish ochreous. Abdomen above red-brown, mixed with white and varied in places with olive; beneath paler. Legs tinged with fuscons, especially inner side of foreleg; foretibia above bright ochreous; all femora strongly haired.

Forewing with termen becoming strongly oblique, the wing thus appearing somewhat more elongate and narrower than in the allies; colours very varied,

predominantly red-brown, mixed in places with olive; costal margin broadly olive, black-spotted, narrowing distally; extreme base mostly white; some subbasal whitish blotches between the veins; median area mostly white, speckled with red-brown and with large red-brown discal spot; lines darker red-brown, the first from costa at one-fourth, with bilobed distad projection in cell and single projections behind M and SM²; second from costa at five-eighths, strongly oblique outwards to R³, then parallel with termen, dentate on the veins, especially R³, M¹ and SM²; subterminal line thick, white, dentate, bent basewards behind R¹, almost interrupted on R³, which is here olive-shaded, behind this vein again as near termen as at R¹, then slightly incurved behind M²; a black blotch proximally to the subterminal between R³ and M², an olive one distally between the radials; terminal line thick, black, strongly interrupted at veins; fringe grey, bisected by a thick blackish line.—*Hindwing* with the principal tuft of raised scales long, even-margined, white at its base, tips reaching to end of cell, under them some blackish shading; a postmedian dark line starting from costa opposite subterminal of forewing, lunulate-dentate to R¹, straight to R³ in middle of wing, there bent distad and slightly interrupted, then again straight, slightly curved distad at abdominal margin; a thick white line accompanies this line distally, and beyond it there is some black shading, especially in abdominal half of wing; subterminal line strongly zigzag at first and rather ill-defined, from R¹ white and formed nearly as on forewing; terminal line less interrupted than on forewing; fringe as that of forewing.

Under-surface whitish suffused with grey; both wings with very broad black band in distal half, shading off somewhat lighter to the termen itself; base of both wings suffused with ochreous yellow, extending irregularly along the veins; forewing with large oval black cell-spot, hindwing with discocellulars weakly marked with grey, somewhat as in *muscosaria* Guen.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type in coll. Rothschild.

Readily distinguished by the shape of the postmedian and good development of the subterminal line, the long and regular hair-scales of the hindwing and other characters, as well as by the shape. Third joint of palpus rather shorter than in most of the species. In the forewing SC¹ is connected with C by a moderate, oblique bar, and R² arises from near R¹. The broad black border of forewing beneath shows no trace of the white spots which are conspicuous in most of the species; the comparative dullness of the underside recalls *muscosaria* almost as much as the *emiliaria* group; *ciridicoma* Warr. (*Nov. Zool.* vi, p. 18), from the Solomons, is near it in the postmedian line, etc., but of a quite different colour, with *emiliaria*-like underside, longer third joint of palpus, and longer hindwing.

26. *Aeolochroma intima* spec. nov.

♂, 50 mm.; ♀, 54–58 mm. Structure, shape and general facies of the *albifasaria-turneri* group, the typical section of *Aeolochroma*. Face in upper half yellow-green, narrowly red-brown above; in lower half red-brown, very narrowly whitish green below. Palpus red-brown, paler beneath. Head green, slightly mixed with whitish and with red-brown. Antennal shaft red-brown, fascicles of cilia in ♂ about as long as its diameter. Thorax green, patagia red-brown, slightly variegated with whitish and sometimes with green. Abdomen above varied red-

brown and green, usually with some purple-fuscons spots; crests green. Under-side of body and legs paler, more ochreous, foreleg and (more slightly) middle-leg marked with red-brown.

Wings green, in ♂ moderately, in ♀ very strongly blotched with purple-fuscons. — *Forewing* with costal edge mostly purple-fuscons, interrupted with pale green or whitish at origin of all three lines and from the subterminal almost to apex; lines pale green or whitish, often interrupted in parts by the dark blotching, or indistinct in parts through being scarcely differentiated from the ground-colour; antemedian from about one-fourth costa, angled on C, strongly (rather longer than in *turneri*, *prasina*, etc.) oblique distad half-way to cell-spot, then falling nearly perpendicularly on posterior margin, rather evenly dentate; postmedian nearly as in *prasina*, but rather more strongly dentate still, and more nearly perpendicular in its posterior course, the enclosed central area rather broader, especially posteriorly; subterminal forming a white or whitish V close to costa, scarcely traceable beyond; the purple-fuscons clouding consists of: a basal patch, projecting posteriorly to cell; an interrupted narrow band (at least between M and SM²) proximally to first line; a line, bar or band distally to first line, occasionally complete, usually interrupted in anterior part of cell; a line proximally to postmedian, occasionally interrupted near costa, always filled up with a proximal blotch between R¹ and M¹, and usually (in varying intensity) one between M² and posterior margin; a cell-mark (in ♀ large; a small costal patch anteriorly to the subterminal; a thick curved line or band from posterior margin close to tornus, touching the postmedian at M¹—R², joining an irregular patch which runs between the radials (in ♀ sometimes continued to SC⁵); in ♀ almost the entire area between this curved band and the termen is filled up with the purple-fuscons colour, leaving only a small green terminal spot between R³ and M¹; a thick terminal line and more or less strong blotches in fringe. — *Hindwing* with white or pale dentate postmedian line, purple-fuscons-margined proximally; purple-fuscons shading costally; purple-fuscons blotches proximally to the vague subterminal, placed at costa, between radials, and between M² and abdominal margin; in ♀ almost the entire basal area as far as postmedian line purple-fuscons and the subterminal blotches much extended, connected but leaving at least a green spot between R³ and M¹, as on forewing; cell-spot present, rather obscured in the ♀ by the dark surroundings.

Underside of both wings pale ochreous to beyond one-half, bounded by a thick red line, which is slightly or moderately outbent in middle on the forewing and always outangled on or just behind M¹ on the hindwing; followed narrowly and interruptedly on forewing, broadly on hindwing, by a white band; distal area mostly reddish, duller terminally, enclosing a pale spot at apex and a white one between R³ and M¹; cell-spots smaller than above, that of forewing followed as far as the red line by an ill-defined whitish patch.

Mount Goliath, January—February 1911 (A. S. Meek) 2 ♂♂, 3 ♀♀ in coll. Rothschild, the type (♂) February.

Very near to—perhaps a race of—*albifusaria* Walk. (*List Lep. Brit. Mus.* xxxv. p. 1589), which I cannot compare side by side. As in that species there is a reddish spot at tornus of forewing; usually also (especially in the ♂) there is some whitish shading beyond the discal spot of the forewing above as well as beneath. The variable purple-fuscons blotching of the central area of the forewing often absorbs it almost entirely from posterior margin to M¹, and in one ♂ joins the proximal dark band behind cell, here obliterating the antemedian line.

27. *Aeolochroma bakeri* spec. nov.

♂, 34 mm. Face fuscous with a broad white bar across forehead (containing a small fuscous mark at upper edge) and a narrow one at lower extremity. Palpus fuscous above and on outer side, pale ochreous beneath. Vertex greenish ochreous. Antenna shortly and evenly ciliated (the cilia not disposed in fascicles as in the typical species). Thorax green; patagia very variegated, roughly in bands of green, white, black, red, and again at the tips white. Abdomen ochreous tinged with green.

Forewing with termen slightly more crenulate than in *prasina* Warr. (*Nov. Zool.* iii. p. 282), more definitely bent at R^3 ; coloration somewhat as in *prasina*, the dark shades deeper and richer; basal patch broken and ill-defined, bright ochreous mixed with reddish and black, the strongest projection behind cell; median area even broader costally than in *prasina*, the two starting from enlarged black costal spots; anteriorly this area is of the ground-colour, the dark shade being confined to the posterior half and some projections anteriorly beside the lines; proximal dark shade of the subterminal interrupted, but strongly diffused proximally in posterior half of wing, nearly meeting the second line; the pale patch from second line to termen between R^3 and M^1 (indicated in many of the genus) extremely conspicuous; terminal dark line thick.—*Hindwing* as far as the postmedian (which is scarcely dentate) strongly shaded with the dark colour, but with a quadrate whitish mark behind the cell-spot, much as in *amethystina*; pale subterminal broad, well developed from R^2 almost to inner margin, its dark proximal shading strong.

Underside similar to that of *intima*, the ochreous parts coarsely though sparsely speckled with fuscous, the forewing less variegated, without definite red line, hindwing with the line less red (more fuscous), thicker, roundly bent, not angled, a large dark discal spot present, distal area more fuscous.

Dinawa, British New Guinea, 4000 ft., August 1902 (A. E. Pratt). Type in coll. Bethune-Baker.

28. *Aeolochroma amethystina* (Warr.).

Of this species Warren (*Nov. Zool.* xiv. p. 123) knew the ♂ only, described from Biagi. I have recently seen 3 ♂♂, 2 ♀♀ from Mount Goliath, January–February 1911. The ♂ possibly shows indications of belonging to a different race from Warren's, the green colour above being rather more restricted, the hindwing beneath paler, especially the subterminal and terminal bands, but the differences are so very slight that I abstain from imposing a subspecific name. The ♂ antenna of this species is only very minutely ciliated, without the fascicles of the typical group; termen of both wings slightly more markedly crenulate.

♀, 62 mm. Larger than the ♂, of a paler, more reddish purple, the darker shading distally to the first line and proximally to the second scarcely appreciable; the lines themselves broader, especially at the margins; the white discal spots greenish, that of forewing joined with a broad irregular green patch from costa; green shading between costa and SC anteriorly to this patch; a green costal patch from apex to subterminal; a small green terminal spot between R^3 and M^1 . Hindwing also with cell-spot indistinct and green, a very small green terminal spot between R^3 and M^2 . Underside with the red parts much less bright, forewing with the white apical patch obsolete, the discal spot and green costal patch adjoining it nearly as above, some strong black subterminal and terminal markings. Hindwing with similar black markings, in one example weaker.

29. *Metallophya arenaria* (Leech).

Leech's very faded type, a ♀ from Kinkiang (*Tr. Ent. Soc. London*, 1889, p. 144) has long remained unique. Recently, however, the British Museum has acquired a beautiful ♂ from Maymyo, Burma, April 1912 (F. M. Mackwood), which must be a form of this species, although the first line of forewing falls almost vertically on hindmargin, while in Leech's type it is here markedly oblique inwards. Otherwise the differences are only such as are explainable by the condition. Lines on forewing and at costal margin of forewing blackish, the whole hindwing strongly sprinkled with dark purple; the markings on the underside, though identical, show up more strongly in dark purple, especially an interrupted distal band. The face, front of thorax and base of forewing look brighter (redder). The ♂ characters are not typical; antenna with short stout pectinations, about as long as diameter of shaft: hindtibia dilated, with hair-pencil.

Crypsiphona Meyr.

The larva, of which I failed to find any account (see *Gen. Ins.* 129 p. 44), is described (without a name) by Brittlebank (*Vet. Nat.* v. p. 116), and is figured and described by Anderson (*ibid.* ix. p. 89). It seems to be related to that of *Terpna* (*Hypobapta*) *percomptaria* Guen., which I strongly suspect—in spite of the paucity of good imaginal characters—is entirely distinct generically from the Indian *Terpna*.

30. *Oenochlora imperialis majestica* subsp. nov.

Differs from the typical (Australian) form in several particulars, although none are very momentous.

Purple-fuscons dusting stronger and coarser, especially in proximal area.—*Forewing* with costal part of antemedian line strong, postmedian not parallel with termen, but more nearly with antemedian, its costal one-fourth obsolete.—*Hindwing* with salmon-coloured and rose-coloured costal clouding brighter, median line thick, mixed with rosy, expanding between R¹ and R². Underside with the purple bands broadened, hindwing without discal mark. All the "whitish ochreous" parts of the Australian form (see Turner's description, *Proc. Linn. Soc. N.S. Wales* xxxv. p. 644) are here deep, bright ochreous.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek); a few ♂♂ in coll. Rothschild, quite uniform.

31. *Agathia defecta* spec. nov.

♀, 48 mm. Face, palpus, and antenna pinkish brown, lower part of face and underside of palpus and of clavola almost white. Vertex pinkish brown, occiput green. Thorax and abdomen above pinkish brown, base of tegulae green; abdomen with very slender erect crests. Underside of body whitish. Legs whitish, foreleg browner on inner side.

Wings shaped about as in *pisina* Butl. ♀, or with the termen of forewing slightly more convex—a little recalling that of *Alloporpaga cinerea* Warr.; venation normal. Predominantly pinkish brown, costal margin of forewing rather paler, the bright yellow-green ground-colour reduced to the following patches:

Forewing: a broad subbasal band, immediately following the usual basal brown patch (which is here slightly larger and more convex-margined than in

most of the genus), 5 mm. wide in cell, 2 mm. anteriorly (and not quite reaching costa), about 4 mm. posteriorly ; an oval subterminal patch between SC^5 and R^2 , its longitudinal measurement somewhat exceeding the transverse ; a very small spot anteriorly and another posteriorly to this patch.—*Hindwing* : a rather more extended subbasal patch, reaching the costal margin and nearly reaching base and abdominal margin, its distal edge projecting costally, behind R^2 and behind M^2 ; a narrow subterminal patch from R^1 to just behind R^2 ; a very small spot anteriorly to this patch ; a speck on submedian fold about midway between subbasal patch and termen. Both wings with a pale line at base of fringe. The usual dark red terminal markings on either side of the tail of hindwing discernible but not at all conspicuous.

Under-surface dirty white-yellow with a faint tinge of green, forewing with a pink suffusion posteriorly to cell, reaching from SC to submedian fold, a broad, irregular, deeper pink band beyond it from costa to tornus, a round grey apical spot and lighter grey terminal suffusion ; hindwing with an equally broad post-median pink band and some extremely narrow grey terminal shading.

Mount Goliath, March 1911 (A. S. Meek). Type in coll. Rothschild.

I know no *Agathia* species with which to compare this ; the strong restriction of the green coloration a little recalls *Alloeopage cinerea* Warr.

32. *Agathia laetata* (F.).

I referred here (*Gen. Ins.* 129, p. 58), but doubtfully on account of the reputed locality, the *Phalaena zonaria* of Donovan's *Insects of China*, suggesting at the same time as a possible alternative that the last-named might be a remarkable *laetata*-like aberration of *carissima* Butl. I find that Pryer (*Trans. As. Soc. Japan* xii. p. 59) thinks *zonaria* = *carissima*, but probably he was only acquainted with the single Japanese species of the genus (*carissima*), so that his opinion does not really add appreciably to the elucidation of the question, especially as nearly all the members of the *laetata* group are so closely related that Hampson (*Faun. Ind. Moths*, iii. p. 487) and Turner (*Proc. Linn. Soc. N.S. Wales*, xxxv. 627) have made a clean sweep of them as synonyms, or at the utmost subspecies.

Alloeopage gen. nov.

When I wrote my revision I had seen so little material in the genus *Helicopage* and was so much in the dark regarding *cinerea* Warr. and *relata* Warr. that I did not venture to remove them from *Helicopage*, where they had been provisionally located by Warren, merely indicating the **probability** of a distinct genus. I have since satisfied myself that he was right (*Nor. Zool.* vi. p. 330) in placing them together as sexes of a single species (though he then overlooked his own older name of "*Agathia cinerea*," imposed on the ♀ three years earlier), and that the unique venation is constant. The ♂ retinaculum also, though strong, has not the characteristic form of *Helicopage*. I give the characters of the new genus as follows :

Palpus with second joint reaching a little beyond frons, shortly rough-scaled above and moderately beneath ; third joint smooth, in ♂ rather long, in ♀ long. Antennae in ♂ shortly pectinate. Pectus hairy. Femora somewhat hairy. Hind-tibia in ♂ somewhat dilated, with hair-pencil ; in both sexes with all spurs. Abdomen not crested. Frenulum in both sexes fully developed. Wing-shape

nearly as in *Helicopage*, but with the termen much more weakly crennulate.—Forewing with cell less than one-half, DC moderately to rather strongly incurved (but less extremely oblique posteriorly than in *Helicopage*), SC^{1-2} long-stalked, their stalk approaching or anastomosing with C, SC^2 sometimes anastomosing with SC^{3-4} , R^1 separate, M^1 separate.—Hindwing with C shortly and closely appressed to cell near base, often with a point of anastomosis, then very strongly diverging, DC incurved, becoming strongly oblique, SC^2 separate, R^2 from well above middle of DC but not extreme, M^1 separate.

Type of the genus: *Alloecopage cinerea* (Warr.) = *Agathia cinerea* Warr. (♀) = *Helicopage relata* Warr. (♂).

In my Key to the Genera, *Alloecopage* can be conveniently placed at the very beginning of Group IV.:

Forewing with SC^2 stalked with SC^1	.	.	.	.	.	<i>Alloecopage</i> .
Forewing with SC^2 stalked with SC^{3-5}	.	.	.	.	.	the rest.

33. *Aracima serrata* Wileman.

The type is a ♀, not ♂ as given in the description (*Ent.* xliv. p. 271). The frenulum is singularly weak, and unless it is damaged the species can hardly remain in *Aracima*, though all other characters agree.

Anisozyga Prout.

In this rather extensive genus I allowed a few species to remain which ought to have been removed. My sole excuse is that, with such an enormous number of Hemitheine species to examine in a limited time, I ventured to trust some plausible-looking placings in *Anisozyga* (*Anisogamia* Warr., nom. praeocc.) without examining all the characters so carefully as was always done where there seemed more likelihood of error or doubt. Nos. 23, 27, 28, 34, 35, and 36, having glabrous femora and wanting the ♀ frenulum and ♂ hindtibial process, are manifestly out of place in *Anisozyga* and even in Group IV. On No. 28, *batis* Warr., see *Orychora*, infra. No. 36, *triseriata* Warr., sinks as a synonym to *Prasinocyema niveiparsa* Butl.; *coerulea* Warr. is a *Gelasma*, in so far as that genus differs from *Prasinocyema*, which is little more than a matter of shape; *albiseriata* Warr. must be called a *Prasinocyema*, but is likely related, in its very slender, elongate palpus, etc., to the group of small species (*viridaurea*, etc.) which I have left in *Gelasma*, but which may probably form a new genus; *scintillans* is also a *Prasinocyema*, related to *niveiparsa*; and *seminivea* belongs in the same vicinity.

34. *Anisozyga polyleucotes* ab. *adornata* ab. nov.

Together with typical ♂♂ of this species occurred two smaller ♂♂ (36–37 mm.), with the ground-colour purer white (not creamy), the green markings somewhat extended, and in particular with a small rufous subapical patch on the hindwing above, in the position of the blackish one of the underside, but less extended. On the forewing the green markings in the middle of the wing are more confluent about the origin of the median veins, and on the hindwing there is a larger and better defined green blotch between the radials just beyond the cell, while the white discal mark is less conspicuous and appears less raised; on both wings the subterminal green markings are also somewhat better developed. Hindwing

beneath with the apical dark blotch appreciably narrower. Head and thorax above rather more strongly mixed with green.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type and paratype in coll. Rothschild.

Not unlikely a good species, as no intermediates are known, and the ground-colour may be significant. On the other hand, Warren has described (*Nor. Zool.* xix. p. 68) as *absona* ab. *exalbata* a somewhat similar form, but still more creamy than *polyleucotes*, and with more green than *adornata*; and there is just a possibility that one polymorphic species (*absona* Warr.) may prove to cover all the forms.

35. *Anisozyga mimicaria* spec. nov.

♂, 28 mm. Related to *absona* Warr. (*Nor. Zool.* iii. p. 287), but considerably smaller, the costal edge of forewing less darkened, all the white markings extended; in particular the large midcostal spot of forewing is continued as a narrow dentate band to posterior margin, the first outer band is broader and uninterrupted, the succeeding band of white marks enlarged. On the other hand, the red-brown subapical spot of hindwing is considerably reduced, both above and beneath, on the upper surface restricted to two very small broken spots, one on each side of SC².

Mimika River, New Guinea, July 1910 (A. F. R. Wollaston). Type in coll. Brit. Mus.

36. *Anisozyga stellifera* spec. nov.

♂, 30–36 mm. Head green, somewhat spotted with white. Palpus green, whitish beneath and at tip. Abdomen dorsally green, spotted with white, and with a small blackish spot towards anal end. Pectus, pencil of hairs, and underside of abdomen white. Foretibia and tarsus fuscous spotted with white.

Wings semitransparent green, of the same shade as in the *fascians* group, to which it evidently belongs. Usually larger than *stellata* Warr. (*Nor. Zool.* xiv. p. 129), markings nearly as in that species, the apical, subapical, and mid-terminal white spots of forewing smaller, the discal spot usually wanting or greatly reduced, only in a single example well developed. No white fillet.

Mount Goliath, January—February 1911 (A. S. Meek). Type and seven other ♂♂ in coll. Rothschild.

Smaller than normal *absona* Warr., more strongly white-dotted on veins, wanting the large discal patch, submarginal bands reduced, subapical spot of hindwing smaller.

37. *Anisozyga iridescens* (Warr.).

Warren (*Nor. Zool.* xiii. p. 81) described this species from the ♂ only. A series from Mount Goliath, January—February 1911, includes two ♀♀, which I have no hesitation in referring here, the agreement being complete except in the dark dorsum of abdomen and presence of double dark spot on posterior margin of forewing at about two-fifths, and of dark terminal blotches on both wings. That of the forewing is purplish-fuscous proximally, becoming more whitish distally, is about 1.5 mm. in width anteriorly, its proximal margin curving basewards from R¹ to beyond R², then receding to termen at M¹, only some very narrow terminal shading remaining purplish-fuscous posteriorly; that of the hindwing is similarly formed, but a little narrower. *A. reducta* Warr. (*Nor. Zool.* xix. p. 70) is possibly hardly more than a local race of *iridescens*; its ♂ scarcely differs except

in the presence of a minute fuscous apical blotch on hindwing, but the ♀ has broader and more complete dark borders. Both have the discocellulars formed as in *Oxychora*, but the ♀ frenulum is fully developed and the characteristic hair-pencil of *Anisozyga* is present beneath (white). The doubtful *innuba* Warr. (*Nor. Zool.* xiv. p. 128) is another close ally, with the borders more reddish.

38. *Anisozyga albifinita* spec. nov.

♂, 34 mm. Face whitish, somewhat mixed with green. Vertex green. Palpus green on outer side, white beneath; third joint elongate. Thorax and abdomen above grey-green, strongly mixed with purple-fuscous; beneath white, the pencil of hairs apparently white (in part damaged). Foretibia and tarsus dark fuscous spotted with white.

Both wings with discocellulars formed somewhat as in *Oxychora*; subdiapheanous grey-green, vaguely watered transversely with rather darker grey-green, the veins interruptedly fuscous.—*Forewing* with costal edge purple-fuscous, with a few small whitish dots; first line rather broad, whitish, lunulate, outcurved in submedian area and terminating in a large, distinct white spot on posterior margin; discal spot dark fuscous; postmedian line scarcely traceable except as a conspicuous white spot on posterior margin at about 3 mm. from antemedian; a vague distal bordering of purple-fuscous, its proximal edge about 3 mm. from termen costally, projecting between radials and again behind M^2 , where it reaches the white postmedian spot, only 2 mm. wide between R^3 and M^2 ; a fine dark terminal line, swelling into spots between the veins.—*Hindwing* with rather large dark cell-spot, inner margin somewhat variegated, being mixed with purple-fuscous dusting and some small whitish spots; a vague purple-fuscous border and dark terminal line nearly as on forewing.

Underside paler, almost unmarked; forewing with a small dark cell-spot, both wings with terminal internodal dots.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

39. *Anisozyga albinata taminata* subsp. nov.

♂, 36–38 mm.; ♀, 32–33 mm. Differs from typical *albinata* Warr. (*Nor. Zool.* xiii. 80, as ab. of *flavilinea*) in having the purplish-fuscous cloudings greatly extended, the abdomen dorsally mostly purplish-fuscous, some of the white dorsal spots obliterated, and in having the antemedian line (which, as in *albinata albinata*, is only distinct in the anterior half) white, not yellowish. The fuscous markings normally consist in the forewing of a median band 3–4 mm. in width right across the wing, and some terminal clouding from costa to across R^3 ; on hindwing of a much enlarged apical blotch (reaching across R^2 and almost to the postmedian line) and some narrower shading on abdominal margin. The ♂ type and one ♀ (Oetakwa River) conform absolutely to this description, a second ♀ has the markings very slightly less extended; another ♂ is intermediate towards the type form, having lost the terminal dark markings of the forewing and the abdominal of the hindwing, while the band is narrowed and the apical blotch of the hindwing and the dorsal markings of the abdomen are reduced.

Upper Setekwa River, Snow Mountains, Dutch New Guinea, 2000–3000 ft., August 1910 (A. S. Meek), type ♂ and a further ♂ and ♀; near Oetakwa River, up to 3500 ft., October–December 1910 (A. S. Meek), one ♀; all in coll. Rothschild.

Possibly a distinct species, as the ♂ hindtibial process appears longer—nearly as long as first tarsal joint (in *albinata* about half as long). Possibly, again, a form of the following; the group (*speciosa* Luc., etc.) is very difficult.

40. *Anisozyga dorsimaculata* spec. nov.

♂, 34–38 mm. Similar to *flavilinea* Warr. (*Nov. Zool.* xiii. p. 80), differing as follows: Brighter, more yellowish green; palpus and antenna (especially clavola) brighter, lighter reddish brown (less fuscous); occiput entirely green, whereas in *flavilinea* there is a somewhat irregular crescentic white mark posteriorly and in *albinata* (which I regard as bon. sp.) a white dot; antemedian line extremely slender, usually interrupted, white, not yellowish; postmedian obsolete, except between R² and M¹ of forewing and R³ and M¹ of hindwing, where it is white; subterminal series of spots similarly obsolescent; terminal white dots in anterior half of each wing excessively minute; fuscous discocellular shade of forewing weak, costal edge on the contrary more broadly fuscous; under-surface with the pale markings weaker; abdomen without white spots, but with a very large fuscous blotch (in *flavilinea* and typical *albinata* confined to a single segment, in *dorsimaculata* occupying three); ♂ antennal pectinations rather shorter (little longer than diameter of shaft); ♂ hindtibial process about 1 mm. in length, as long as first joint of tarsus, hair-pencil very strong.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October–December 1910 (A. S. Meek), type and others; Upper Setekwa River, 2000–3000 ft., August (2), September (2), 1910 (A. S. Meek); Mount Goliath, February 1911 (A. S. Meek); all in coll. Rothschild.

Perhaps still closer to *speciosa* Luc., of which I do not know absolutely authentic males, but which seems to include certain forms with very little white marking. Except the difference in the dorsum of abdomen I can point to no decisive differential character.

41. *Anisozyga albilauta* ab. *niaplana* ab. nov.

♂, 35 mm. Differs from the type form (*Anisogamia albilauta* Warr., *Nov. Zool.* iv. p. 33 = *fragmentata* ab. *major* Warr., *ibid.* xix. p. 69) in the considerable extension of the white markings, which gives it a very different aspect. Costal margin of fore- and inner margin of hindwing more broadly white; first line of forewing much thicker, cell-mark not dark-pupilled, postmedian line broader, not interrupted, posterior blotch extended almost to torus, a white subterminal line connected midterminally with apical and subtoral blotches. Hindwing with a thick white cell-mark, thick, uninterrupted postmedian and a subterminal similar to that of forewing.

Near Upper Setekwa River, Snow Mountains, Dutch New Guinea, 2000–3000 ft., September 1910 (A. S. Meek). Type in coll. Rothschild.

The type specimen of *albilauta* Warr. is in very worn condition, but a careful comparison with that of *major* Warr. (bon. sp.) leaves no doubt of their identity.

42. *Anisozyga isogamia* spec. nov.

♂, 28–29 mm.; ♀, 34 mm. Very like *fragmentata* Warr. (*Nov. Zool.* xiv. p. 127), but with the sexes nearly alike; somewhat more translucent (colour of *iridescens* Warr.), the veins strongly dotted with white; costal edge more narrowly

white, much more strongly dark-speckled, the speckling olive-brown rather than dark fuscous; discal spot of forewing reduced, less distinctly ocellated, the two subapical costal spots farther apart, the proximal reduced, the distal nearer apex and increased to a strongly dentate thick line, reaching to R^1 or nearly to R^2 . In the ♂ the white thoracic blotch encloses less, and less definite, dark marking, but its posterior part is more extended transversely; in the ♀ the dorsum of abdomen is mainly dark fuscous. The ♂, as in *fragmentata*, has the abdominal margin of the hindwing whitish; in the ♀ it remains green. In *fragmentata* the venation is normal, DC of forewing a rather deep but regular curve, of hindwing curved, becoming oblique, with R^3-M^1 well stalked; in *isogamia* it is as in the *iridescens* group and in *Oxychora*, DC^3 acutely inangled, hindwing with M^1 varying from connate to short-stalked. The pencil beneath base of forewing is white, as in *fragmentata*.

Mount Goliath, January—February 1911 (A. S. Meek), 3 ♂♂ and 1 ♀ in coll. Rothschild.

43. *Anisozyga orbimaculata magnificata* subsp. nov.

♂, 35–36 mm. Larger than typical *orbimaculata* Warr. (*Nov. Zool.* xiv. 129) from Biagi, the deeply lunulate-dentate proximal white line not or scarcely interrupted, the white distal markings less grey-dusted, enlarged, especially the "bracket-shaped" marks of the antepenultimate series between R^3 and M^2 , which form distinct, broad, confluent patches; a white discal dot is present on the forewing; the apical blotch of the hindwing is darker than in Warren's type and less regularly rounded: uniform purple-fuscous, or at lightest dull rufous internally instead of whitish pink, and with a broader and darker purple-fuscous circumscription; but I gather from the description that this spot varies in colour in the Biagi form. Abdomen with a rather large purple-fuscous blotch on fifth abdominal, which is only indicated by a few dark scales in the type form; the white dorsal dots well developed.

Mount Goliath, January—February 1911 (A. S. Meek), 7 ♂♂ in coll. Rothschild, showing no variation except in colour of apical blotch of hindwing.

44. *Anisozyga decorata goliathensis* subsp. nov.

♂. Only different in a few not very striking, but apparently constant characters from *decorata decorata* from the Angabunga River (*Nov. Zool.* xiii. p. 79). Costal spot at origin of antemedian line scarcely wider than the line itself; tornal blotch of forewing smaller, reduced on the underside to a few fuscous scales; subapical blotch of hindwing less elongate, leaving a patch of the ground-colour from the tooth at the end of R^1 almost to the apex, whereas in *decorata decorata* it extends right to the tooth at end of R^1 .

Mount Goliath, January—February 1911 (A. S. Meek), 5 ♂♂ in coll. Rothschild.

Rather brighter green than *desolata* Warr. (*Nov. Zool.* xiv. p. 126), which has no tornal blotch to forewing, a larger discal mark, whiter postmedian line, larger and rather brighter subapical blotch to hindwing, etc.

45. *Anisozyga bifuscata* spec. nov.

♂, 32–36 mm. Head and face green. Palpus fuscous, its underside and the extremities of second and third joints white. Thorax green above, white beneath,

the pencil of hair pale green. Foretibia and tarsus fuscous spotted with white. Abdomen dorsally green, with a white spot at base, then one or two small white dots, then two or three sometimes partly confluent fuscous blotches.

Wings green, shaped and coloured about as in the preceding.—*Forewing* with costal margin purplish-fuscous, spotted with whitish; a reddish spot at base; first line reddish, somewhat white-mixed, strongly zigzag, from costa at about 4 mm., M-shaped outwards in cell, strongly angled on vein M, making a bold outward sweep in submedian area, but with a slight indentation at its extremity on the fold, finally bending outwards again from SM² to posterior margin; a similarly coloured, indistinct, elongate cell-mark; postmedian line apparently also zigzag, but very ill-defined, chiefly showing as spots between the veins; a subapical purple-fuscous blotch; a few subterminal pale spots, only that between R³ and M¹ prominent (of moderate size and white); distal margin with white dots in the teeth; fringe mostly reddish-fuscous.—*Hindwing* without the costal, basal and antemedian markings; subapical fuscous blotch larger than on forewing.

Under-surface whitish green, costal margin of forewing somewhat ochreous, spotted with fuscous; forewing with a fuscous discal dot, both wings with deep fuscous subapical blotch and some terminal fuscous dots between the veins, at least in anterior half.

Monnt Goliath, January—February 1911 (A. S. Meek), 7 ♂♂ in coll. Rothschild.

Nearly related to *decorata* Warr., but at once distinguishable by the strong fuscous subapical blotch of forewing both above and beneath. R³-M¹ of hindwing are rather shortly to moderately stalked; in the only two *decorata* which I have before me they are scarcely stalked—virtually connate.

46. *Anisozyga eranna* spec. nov.

♂, 34–35 mm. Face and vertex bright green, the face narrowly edged with white beneath, the occiput with some reddish spots. Palpi ochreous reddish, narrowly white beneath. Antenna ochreous reddish, spotted with brick-red; pectinations short. Legs ochreous reddish above, white beneath; foretibia and tarsus darker, spotted with whitish. Thorax above green, with small reddish patch in middle; beneath whitish, the pencil of hairs green somewhat mixed with white. Abdomen above green with some whitish mediodorsal spots and a reddish belt about the fifth and sixth segments, and reddish extremity.

Wings bright green, costal edge of forewing and fringes of both wings ochreous-reddish mottled with light brick-red.—*Forewing* with a white dot at base; antemedian line white, edged with reddish, starting from a thickened costal spot at 3 mm., indented on cell-fold and more slightly on M, somewhat excurved, running into a red blotch on hindmargin at nearly 4 mm.; discal spot large, white, crescentic; postmedian line arising from a large white reddish-edged costal mark 5 mm. before apex, but largely obsolete, being only represented by a few dots and by a fine lunule between R³ and M¹; midway between postmedian and termen a series of white, not reddish-edged, spots between the veins, only that between R³ and M¹ large; distinct ochreous whitish dots in the teeth at the vein-ends.—*Hindwing* with cell-mark smaller, first line obsolete, a large apical reddish blotch, darker in its centre; the rest as on forewing.

Underside whitish green, the costal edge of forewing and the fringes nearly as above, the markings of the upper surface mostly faintly reproduced; forewing

with a narrow bright green costal mark proximally to the postmedian pale blotch and a broader one distally to it, the latter containing the first two white spots of subterminal series ; hindwing with the centre of apical blotch fuscous.

Mount Goliath, January—February 1911 (A. S. Meek). Type and two others in coll. Rothschild.

The blotches on the upperside are coloured nearest as in *veniplaga* Warr. (*Nov. Zool.* xiv. p. 130). From *desolata* Warr. (*ibid.* p. 126) *eranna* can be distinguished at once by its brighter colour, much lighter and differently shaped reddish blotch, white spot between R^3 and M^1 on both wings, green not brown costal mark near apex of forewing beneath, etc.

47. *Anisozyga beatrix* spec. nov.

♂, 40–43 mm. Face green. Vertex whitish ochreous. Palpus with third joint elongate ; ochreous, paler beneath and at tip. Thorax and abdomen above mostly green, thorax posteriorly and abdomen at base occupied by a large, somewhat shield-shaped, pale fleshy, darker-edged blotch, abdomen afterwards with some dorsal dots of the same colour and a large posterior blotch. Pencil of hair at base of forewing beneath green.

Wings green with some ill-defined whitish dots and strigulae.—*Forewing* with costal margin strongly ochreous ; a moderate whitish-fleshy subapical blotch, connected with apex by a costal streak ; a very small subterminal mark of the same colour on posterior margin ; a very weak, slender, sinuous antemedian line and indications of small cell-mark ; termen subcrenulate, with white dots at vein-ends.—*Hindwing* with a moderately large apical blotch of the same colour as that of forewing, dark-edged and containing a few small fuscous dots and two large dots on termen, between C and SC^2 and between SC^2 and R^1 ; termen strongly crenulate, with white dots at the vein-ends.

Underside whitish green, both wings with the apical blotch present, that of forewing fuscous in its middle, that of hindwing all fuscous except the extreme edges.

Mount Goliath, January—February 1911 (A. S. Meek), 5 ♂♂ in coll. Rothschild.

Related to *sexmaculata* Warr. (*Nov. Zool.* xiv. p. 134), the blotches exactly the same colour, but smaller, less numerous, costal margin of forewing more ochreous, dorsum of abdomen also different.

48. *Anisozyga delectabilis* spec. nov.

♂, 38–41 mm. Face green, narrowly white below. Palpus ferruginous above, overlaid with black at least in the basal part of second and third joints, these joints whitish at tips ; all whitish beneath. Head green, slightly mixed with ferruginous. Antenna pale ochreous spotted with ferruginous. Thorax above green, narrowly variegated with ferruginous and blackish in middle ; metathorax with a bright ferruginous tuft. Abdomen above mostly green, with white dorsal spots, segments 2 and 3 narrowly belted with ferruginous and black scaling at end, segments 4–6 more largely mixed with these colours dorsally. Pectus whitish, pencil of long hair green. Legs whitish, forefemur and tibia above and tibia on innerside fuscous, foretarsus fuscous above, with ends of joints white ; hindtibia with terminal process quite short.

Wing-shape and venation normal. Rather dark but semitransparent green.

—*Forewing* with costa ochreous mixed with ferruginous and spotted with fuscous; an irregular pale line at base: some fine white subbasal markings, tending to form one or two irregular transverse lines; antemedian line slender, white, lunulate-dentate, the teeth pointing proximad on the veins, the course oblique outwards to submedian fold, then incurved to SM^2 and again oblique outwards to rather before middle of hindmargin, here accompanied proximally by a flattened, red, black-mixed blotch, slightly variable in extent, but never crossing far beyond SM^2 ; a crescentic white cell-mark; postmedian line white, somewhat zigzag, lunulate-dentate, the teeth pointing distad on the veins; thickened and produced at R^1 , exceedingly fine from R^1 to beyond R^2 , a little thickened at R^3 ; also thick costally, where it forms a white proximal margin to a ferruginous and reddish subapical blotch which contains distally two black, distally white-edged spots; a small, flat, ferruginous, black-marked blotch on posterior margin from postmedian line to tornus; a small white triangle in or close to apex; a smaller, rounder white dot behind it, between SC^5 and R^1 , a series of minute internodal ones (mostly in pairs) continuing these subterminally; terminal whitish triangular dots at vein-ends: fringe pale with a broad, interrupted, reddish-fuscous line intersecting it before middle and a greyer one distally.—*Hindwing* without first line, white cell-mark or inner-marginal blotches, the rest nearly as on forewing; a white spot (sometimes minute) at the base of M^2 ; the subapical blotch of forewing here becomes apical, and is extended nearly to R^2 , is more black-dusted and contains two or three rather large black spots.

Under-surface much paler green, the white markings of upperside present but feeble, the apical blotches of both wings present, uniformly blackish.

Mount Goliath, January—February 1911 (A. S. Meek). Type in coll. Rothschild; 9 other ♂♂ in coll. Rothschild and Brit. Mus.

Possibly a local race of *gracililinea* Warr. (*Nov. Zool.* xiv. p. 127), from which it scarcely differs except that the postmedian line of both wings is dentate on all the veins, whereas in that species it makes a single bold curve from before R^3 to behind M^2 , and that on the forewing the line is more faint about R^1 and R^2 . From *decorata* Warr., which it also resembles, it can be distinguished by the deeper, bluer green colour, clearer white lines, larger blotch on posterior margin proximally to the first line of forewing, larger subapical blotch on forewing beneath, etc.

♀. A ♀ which I think, on account of the tufted metathorax, position and course of antemedian line, thin, curved discal mark, approximation of lines on posterior margin, separated subapical spots of forewing, white colour at apex, etc., may be referable to this species, should be described here. 36 mm. Face green, thorax partly green, vertex, middle of thorax, metathoracic tuft and abdomen mixed with white and deep flesh-colour.—*Forewing* with base and costa broadly the same, the narrow, curved discal mark confluent therewith; first line white, rather thick, wavy, rather oblique outwards from costal margin to submedian fold, here roundly bent and thence slightly incurved; accompanied proximally in posterior half of wing by a rather large, deep flesh-coloured blotch; postmedian line white, from nearly two-thirds costa, about parallel with termen to R^3 , then strongly out-bent, forming a strong rounded prominence, incurved again to and along M^2 , approaching first line, the enclosed green space from here to posterior margin being only about 1 mm. broad; a narrow pale fleshy band follows the postmedian, then three ovate green spots between SC^1 and R^2 , separated by pale veins, succeeded

distally by a thick deep flesh-coloured line ; a further narrow white band, a thick deep flesh-coloured line (arising from green subapical spot), and finally a white band, broadest in anterior half of wing ; terminal line thick, green, interrupted with white at the vein-ends ; fringe with alternately white and fleshy lines, but more spotted with fleshy opposite the veins.—*Hindwing* green as far as the postmedian line, merely with a small, fine white cell-mark ; postmedian line and distally nearly as on forewing, no green costal markings, the white terminal band much less clear. Underside paler, the markings more shadowy, but with an almost complete fuscous subterminal band on the forewing (occupying the position of the two outer fleshy lines and their interspace), only obsolete from costal margin to SC^4 and containing a pale spot between SC^4 and SC^5 ; hindwing with a similar band from costa to R^3 , broad anteriorly, narrowing, a very feeble and slender outcurved continuation from R^3 to M^2 .

Mount Goliath, February 1911 (A. S. Meek), in coll. Rothschild.

49. *Anisozyga longidentata* spec. nov.

♂, 29 mm. Face green, white below. Palpus green, third joint not very long, white. Vertex green mixed with white. Antenna white spotted with red-brown ; pectinations short. Thorax mostly green, the pencil beneath wanting. Abdomen dorsally green with white spots. Foretibia and tarsus fuscous spotted with pure white.

Forewing with termen moderately crenulate ; green, rather more yellowish than in most of the genus, irregularly spotted and streaked with white, especially in basal area ; costal edge narrowly deep chocolate, spotted with white ; lines white ; antemedian thick, from costal margin at almost one-third to posterior margin at one-half, strongly outbent on entering cell, thence lunulate-dentate ; postmedian at about 3.5 mm. from termen, deeply dentate, the distal teeth placed on the veins, the proximal filled in at their tips with white spots and giving place to thickened lunules posteriorly ; a chain of elongate internodal white spots shortly beyond the postmedian, more closely approximated to it in the posterior than in the anterior half of the wing ; a series of similar but smaller ones close to termen ; termen with white dots at vein-ends ; fringe green, filled in with white in the internodal crenulations.—*Hindwing* with termen strongly crenulate ; mostly white, marked with green in inner-marginal region, with green cell-spot and very deeply dentate green lines beyond ; the first with the points of all the distal teeth approximately equidistant from termen, but that on R^2 much the longest, on account of extremely deep indentations of the line on either side of it ; the second similar, its deepest indentation between R^2 and R^3 , its distal teeth running along the veins to near termen ; the third (subterminal) consisting of narrow internodal V-shaped marks pointing proximally, their apices slightly filled in with green, their distal extremities in part touching a green terminal line ; fringe as on forewing.

Underside much more yellowish ; the costal edge of forewing deeper ochreous, both wings with two ill-defined, thick, approximated whitish postmedian lines, the proximal the more dentate.

Mount Goliath, January—February 1911, 3 ♂♂ in coll. Rothschild.

A very distinct species. The discocellulars are formed almost as in *Orychora*, but the frenulum, the hairy femora, etc., indicate a true, if slightly aberrant, *Anisozyga*.

50. *Anisozyga lenis* spec. nov.

♂, 34 mm. Very closely related to *sublitorata* Warr. (*Nor. Zool.* vi. p. 327) but smaller; otherwise the differences noticeable on the upper surface are slight. Ground-colour slightly more greenish, the green markings a little less deep, hence the contrast decidedly toned down; distal edge of median band of forewing and the corresponding edge of green basal half of hindwing less deeply scalloped out between R^2 and R^3 and between M^2 and SM^2 ; on hindwing also this green area is rather more extended, and there is a small, only slightly broken reddish subapical blotch in place of the "blackish" (purple-fuscous) dots of *sublitorata*. Underside without the olive basal suffusion, the thick olive-fuscous postmedian line which bounds it (or which remains even when, as in some *sublitorata* from the Oetakwa River, the suffusion is nearly obsolete) reduced to a dentate line from C to R^3 ; the olive-fuscous submarginal band very much narrowed, even somewhat interrupted, widening merely at costal extremity, especially on hindwing, and emitting no blotches proximally between R^2 and R^3 .

Dinawa, British New Guinea, 4000 feet, August 1902 (A. E. Pratt). Type in coll. Bethune-Baker.

That this is not a local race of *sublitorata* is proved—apart from the almost too great differences in the position of the markings—by the occurrence of typical *sublitorata* at the same time and place.

51. *Metacineta vernicoma* spec. nov.

♀, 30 mm. Structure and general coloration entirely agreeing with the other species of the genus, hindwing not noticeably bent at R^3 , abdominal crests very small, red, on a rather broad red mediodorsal stripe, wings less strigulated with whitish.

Forewing with costal edge whitish yellow, not white, not dusted with red except at extreme base; discal dot small, red; no other red spots; no white spots at vein-ends, a fine, interrupted red line at base of fringe, followed in fringe by red spots opposite the veins. *Hindwing* with similar discal dot and bordering.

Under-surface paler, without discal dots; no red line at base of fringe, no red dusting at base of costa of forewing.

Southern Nigeria, January 1909 (G. C. Dudgeon). Type in coll. Brit. Mus. An extremely worn ♀ from the Oban district, Southern Nigeria (P. A. Talbot), also probably belongs here.

In the fore- as well as in the hindwing R^2 arises quite near R^1 .

52. *Comibaena castaneata* (Warr.).

Comastolodes castaneata Warr., *Nor. Zool.* xiii. p. 87 (1906).

Probolosceles agathia Warr., *ibid.* xix. p. 80 (1912).

Pyrchorachis castaneata Prout, *Gen. Ins.* 129. p. 239 (1912).

I find that this very distinct little species possesses a frenulum—slender and colourless, but not extremely short. It is probably a very specialised development of *Comibaena*, with the five subcostals and R^1 all stalked together and the ♂ hindtibial process wanting. The wing-shape and pattern give some suggestion of the *pictipennis* group of that genus.

53. *Comibaena rhodonia* spec. nov.

♀, 22 mm. Face and palpus white marked with green; palpus with second and third joints very long. Vertex green. Antenna simple, whitish. Thorax green above, in front white spotted with red; abdomen with some white, red-edged spots (partly discoloured), anal extremity white.

Forewing with SC^1 from cell, anastomosing with C, SC^2 arising before SC^5 ; light apple-green, costal margin spotted with red, the red becoming predominant distally, expanding at two-thirds and again at apex, enclosing white spots at the expansions; an ill-defined red, white-dotted spot on posterior margin before one-half, a few red scales on M before origin of M^2 ; cell-dot black; a series of postmedian red blotches, enclosing white dots or dashes on the veins; first blotch small, on R^1 ; second large, from R^2 to across R^3 and followed by some red dusting along R^3 to termen; third blotch small, on M^1 ; fourth large, from tornus and posterior margin to across M^2 ; termen with small, white-centred red spots at vein-ends; fringe pale green, marked with red opposite the veins.—*Hindwing* with termen rounded, M^1 stalked; concolorous with forewing, with small black cell-dot and series of terminal red, white-centred spots, that at tornus larger.

Underside pale green, costal margin of forewing tinged with reddish, both wings with weak cell-dot.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

Nearly related to *inductaria* Guen. and *viridifimbria* Warr.; distinguished by the large rosy blotches: not impossibly an aberration of the latter.

54. *Racheospila nortia* (Drnce).

Synchlora(?) *nortia* Druce, *Biol. Centr. Amer. Lep. Hct.* ii. p. 93; Prout, *Gen. Ins.* 129 p. 115.

I was unacquainted with this species when my Revision appeared, and merely cited it in the position assigned by Drnce. I have now seen examples from Costa Rica collected by Mr. Schaus, and find that it belongs to the *diarita*-group of *Racheospila*, i.e. *Lissochlora* Warr., as already suggested with a query by Warren (*Nor. Zool.* vii. p. 135). A much larger form—or very close ally which I have not yet been able to differentiate—occurs in S.E. Peru.

55. *Racheospila superaddita* spec. nov.

♂, 18 mm. Face red, with two white spots below. Palpus red above, beneath and at end of second joint snow-white. Vertex and antennal shaft snow-white; occiput red. Thorax and base of abdomen above green; abdomen with four raised white dorsal spots standing on a dark red ground, those on second and third segments large, confluent, occupying a great part of the segments, that on fourth smaller and detached, that on fifth still smaller. Pectus, abdomen beneath, and legs mostly white; posterior tibia with rather strong pencil and well-developed terminal process one-half as long as tarsus.

Forewing apple-green, with costal edge red at base, otherwise snow-white narrowly margined with red; a minute red cell-spot; a fine, indistinct, curved whitish antemedian line from M to posterior margin; a distinct, somewhat lunulate-dentate white postmedian, 2 mm. from and parallel with termen, only slightly incurved posteriorly; terminal line fine, red, nowhere thickened; fringe white, finely and weakly barred with reddish opposite the veins and with the tips reddish.

tinged.—*Hindwing* with termen slightly more prominent about R^3 than in the allies, C not anastomosing with cell; postmedian line removed rather further from termen; terminal line and fringe as on forewing.

Under-surface paler, the red at costal margin of forewing rather broader; cell-dots and line obsolete.

Jimenez, W. Colombia, 1600 ft., July 1907 (dry season). Type in coll. L. B. Prout.

Although this group (Section II., *Gen. Ins.* 129, p. 109) is already rather extensive and the species closely allied, I have seen all except *venustula* Dogn. and *lesteraria* Grossbeck (both of which are shown by the descriptions to be entirely different) and cannot refer the present species to any. Nearest to *sigillaria* Guen. and *ephippiaria* Möschl., the white lines better developed, red on termen and fringe less developed, hindwing less perfectly rounded, ♂ hindtibial process longer.

56. *Progonodes holochroa* spec. nov.

♂, 38 mm. Head and palpus green, a narrow white fillet between antennae. Antennal shaft ochreous whitish. Thorax above green, beneath white. Abdomen above dirty ochreous whitish with a slight admixture of green: crests dark purplish bronze. Legs whitish, tinged (especially the fore and middle pairs) with reddish brown above and on outer side.

Wings shaped about as in *stagonata* Feld. (*Reise Novara, Lep. Het.* t. 127, f. 25).—*Forewing* uniform bluish green, not very densely scaled; costal margin with coarse fuscous speckling which does not quite reach the extreme costal edge; a fuscous discal spot; a series of large white dots at the vein-ends; terminal line fuscous, somewhat interrupted by the extremities of the white dots; fringe ochreous, slightly tinged with fuscous opposite the veins.—*Hindwing* concolorous, with a rather large white discal spot on DC^2 and a very small one posteriorly on DC^3 ; termen and fringe as on forewing.

Underside much paler. Forewing with costal margin broadly fuscous as far as end of cell (the extreme edge quite ochreous), ochreous beyond, with a few coarse fuscous speckles; cell tinged with fuscous; fringe as above. Hindwing with the large white discal spot feebly indicated; fringe as above.

Chiriqui, Panama (received through Standinger and Baug-Haas). Type in coll. L. B. Prout.

Readily distinguished from its nearest allies (*stagonata* and *argycauda*) by the absence of white admixture in the green ground-colour.

57. *Chlorodrepana cryptochroma* spec. nov.

♂, 32 mm. Face black. Palpus black, base beneath lighter and more reddish. Antenna ochreous. Thorax above green. Abdomen scarcely crested; brown, dorsally spotted and speckled with blackish. Legs ochreous, forelegs fuscous above.

Forewing with R^1 not stalked, M^1 barely stalked; uniform deep blue-green, extreme costal edge salmon-colour.—*Hindwing* with M^1 barely stalked; deep blue-green, costal area as far as middle of cell and R^2 (rather less far towards apex) salmon-colour.

Underside ochreous; forewing, with the exception of the margins and an ill-defined apical patch, strongly irrorated with blackish, base of costa and most of submedian area rather more reddish; hindwing similar, the entire area, which

above is salmon-colour, here rather free from blackish irroration and slightly tinged with reddish, distal half of submedian area also rather free from irroration, but not reddish.

N. Kavirondo, Maramas District, Ilala, British East Africa, 4500 ft., June 20, 1911 (S. A. Neave). Type in coll. Brit. Mus.

A very distinct species, entirely without the discolorous distal borders of the other species of *Chlorodrepana*.

58. *Gelasma insulsata* (Warr.).

Euxena insulsata Warr., *Nov. Zool.* iv. p. 39.

This species is clearly a *Gelasma* by all characters. On my first examination of Warren's type I noted the basal expansion of the hindwing, which would place it in my Group V., but by some unaccountable oversight I ignored this note later, and left the species in *Euxena* (*Gen. Ins.* 129, p. 64), although with a query on account of the pectinate ♂ antenna. I have recently re-examined the type.

59. *Gelasma albitaenia* spec. nov.

♂ ♀, 28–34 mm. Face ochreous, with lower edge white. Palpi ochreous above, white beneath. Antennal shaft white proximally, ochreous distally; pectinations ochreous. Vertex white, a band posteriorly concolorous with thorax. Thorax above olive-green mixed with white; abdomen paler; both beneath white.

Forewing coloured and marked nearly as in *spumata* Warr. (*Nov. Zool.* xiii. p. 88), but wanting the dark cell-spot and with the white subterminal line broad and conspicuous, somewhat indistinct at R² and in submedian area. In this it more resembles *thetydaria* Guen., which has longer, more fuscous pectinations, much broader, differently placed lines, rather broader hindwing, etc.—*Hindwing* slightly narrower than in *spumata*, the tail at R³ slightly less pronounced; coloured and marked similarly to that species, cell-spot wanting; the white subterminal much narrower and less conspicuous than on forewing.

Underside whitish, similarly but much more faintly marked, almost unicolorous.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October–December 1910 (A. S. Meek). Type ♂ in coll. Rothschild. Also a ♀ from Setekwa River, September 1910 (coll. Rothschild), and a further example in coll. Brit. Mus.

60. *Gelasma smaragdina* spec. nov.

♀, 29 mm. Face green. Palpi rather slender, twice diameter of eye, terminal joint moderate; green, paler beneath. Head green; a fillet and base of antenna white. Thorax and abdomen green above, the latter with small white spots. Fore-femur and tibia green above.

Forewing with apex sharp, termen almost smooth, oblique, scarcely convex; SC¹ curved, successively approaching C and SC² (on the right wing in the unique type touching the former, thus certainly variable in the species), DC deeply incurved, R² much before middle, M¹ separate; rather bright, light blue-green, costal edge (except at base) light purplish-fuscous strigulated with whitish; lines and discal spot (rather near first line, cell being short) much yellower green; first line from before one-fourth costa to one-third hindmargin, excurved and sinuous, accompanied proximally by faint pale shading; postmedian at three-fifths, slightly

incurved between radials and posteriorly, slightly excurved between, accompanied distally by a series of white vein-spots; terminal line dark brown, thickest at vein-ends, gradually narrowing (in places almost interrupted) between; fringe very pale whitish yellow. *Hindwing* with termen subrenulate and a moderate tooth at R^3 ; cell one-third, C closely appressed for a short distance, R^2 from very near R^1 ; cell-spot, postmedian and terminal lines and fringe as on forewing.

Under-surface whitish blue-green, costal half of forewing brighter green with whitish, fuscous-spotted costal edge except at base; no other markings.

Mount Goliath, March 1911 (A. S. Meek). Type in coll. Rothschild.

More vivid green than most of the genus.

61. *Gelasma balteata* (Warr.).

The type of this species (*Nor. Zool.* xiv. p. 137) is a ♂ in worn condition, the palest parts therefore appearing clearer white than would otherwise be the case. I have now before me two ♀♀ from Mount Goliath, February 1911, in beautiful condition, which may possibly represent a local race, but are probably typical of the species. Their size is larger (30–32 mm.), the elbow in the termen of the hindwing appears slighter, the white areas of both wings are well speckled with green, terminal line green, fringe whitish, tinged with green.

The ♀ palpus is slender, with the terminal joint moderately elongate. In all three specimens SC^1 anastomoses with SC^2 .

62. *Gelasma bicolor privata* subsp. nov.

♂, 24 mm. Differs from typical *bicolor* Warr. (*Nor. Zool.* xiii. p. 88) in its slightly larger size, rather less strong tail to hindwing, slightly whiter, slightly less irregular lines, with the accompanying green shades rather less thick, the postmedian and the cell-spots obsolete beneath, the underside of hindwing, and of forewing at distal and posterior margins, being whitish, the rest of forewing greener. The third joint of the palpus looks slightly longer, but this may be merely a matter of position or exposure, as no precise measurements have been possible.

SC^1 of the forewing arises from the cell and anastomoses at a point with C, afterwards closely approaching SC^2 ; R^1 is connate or barely stalked; C of hindwing anastomoses at slightly more than a point with the cell, R^2 arises very near R^1 . Antennal pectinations coarse and curved, as in *Thalassodes*; hindtibia dilated, with hair-pencil and very short terminal process.

Mount Goliath, January 1911 (A. S. Meek).

63. *Gelasma submixta* spec. nov.

♀, 22–24 mm. Near *commixta* Warr. (*Nor. Zool.* xiii. p. 89), similarly coloured but less mixed with white, smaller, both wings rounder, forewing with the postmedian line more curved, bearing no white vein-dots distally. The green lines and cell-spots are not on the whole very conspicuous—*i.e.* not greatly darkened; the dark terminal line is marked chiefly—in some examples only—at the vein-ends. The structure seems quite to agree with that of *commixta*, the palpus slender, with both second and third joints long, forewing with SC^1 from cell, anastomosing with C and nearly always with SC^2 also, R^1 stalked, DC incurved, hindwing with R^2 from very near R^1 . The similarity in colour, shape, palpus, etc.,

to *Prasinocyma debilis* raises a doubt whether the delimitation of the genera *Gelasma* and *Prasinocyma* is at present satisfactory; the palpal and venational structure and the degree of angulation of the termen of the hindwing seem to show all kinds of intergradations, and possibly the two will have to be merged together. Turner has already (*Proc. Linn. Soc. New S. Wales*, xxxv. p. 559) placed one angled-winged species of the present group (*centrophylla* Meyr.) in *Prasinocyma*.

Mount Goliath, January—February 1911 (A. S. Meek), 7 ♀♀ in coll. Rothschild. Also a ♀ from Dinawa, British New Guinea, 4000 ft., August 1902 (A. E. Pratt) in coll. Bethune-Baker.

The curious fact that *bicolor* and *commixta* Warr. (both from Angabnnga River) are only known in the ♂ and ♀ sex respectively, and *bicolor privata* and *submixta* Prout (both from Mount Goliath) the same, suggests a possibility—in spite of some difficulties—that they may prove to be sexes of a single species, occurring in two distinct races, both rather strongly dimorphic sexually; in both cases the tail of the hindwing would be slighter in this Mount Goliath race.

64. *Prasinocyma panchlora* spec. nov.

♂ 28 mm. Shape and colour of *vermicularia* Guen., differing in the green race, more broadly white vertex and uniformly green wings without the whitish strigulation and without darker green cell-mark. The costal edge of the forewing is narrowly whitish ochreous, perhaps a little paler than in *vermicularia*. Possibly also the abdomen is a little more slender. From *chloroprosopa* Prout (*Ann. Transv. Mus.* 1913, p. 194), to which it comes still closer, *panchlora* differs in its somewhat lighter green colour, pale costal edge and absence of the white hind-marginal spot of the forewing. The structure is typical, the hindtibial hair-pencil rather long but slender, white; forewing with SC^1 anastomosing with C , R^1 connate, M^1 connate; hindwing with SC^2 shortly stalked, M^1 scarcely stalked.

Simonstown, Cape Colony, November 1903 (P. de la Garde). Type in coll. Brit. Mus.

65. *Prasinocyma degenerata* spec. nov.

♂, 20–22 mm. Face and palpus reddish brown; palpus with second joint reaching just beyond frons, third joint rather short, distinct. Antennal shaft white at base, then ochreous; pectinations rather long. Vertex green, extremely narrowly edged with white in front. Thorax and abdomen above green, beneath white, anal tuft white. Foreleg red above; (middle legs lost;); hindleg white, with a short pencil from end of femur and another from base of tibia; tarsus abbreviated (one-half tibia).

Wings moderately opaque green, not strigulated with whitish.—*Forewing* with costal edge narrowly pale ochreous; an indistinct dark green cell-spot; fringe concolorous proximally, whitish distally.—*Hindwing* the same, except costal edge.

Under-surface unmarked; of forewing much paler green, becoming whitish green posteriorly; of hindwing whitish green.

S.E. Ruwenzori, 3500 ft., May 16, 1906 (Hon. G. Legge and A. F. R. Wollaston). Type in coll. Brit. Mus. Also a less perfect ♂ from Gabt el-Meghahid, White Nile (H. N. Dunn).

An inconspicuous little species of a more opaque and less bluish green than

vermicularia, the build rather more compact. In the forewing SC^1 is free, R^1 connate, M^1 connate; in the hindwing C is closely approximated to the cell to almost one-half, SC^2 well stalked, M^1 well stalked.

66. *Prasinocyma geminata* spec. nov.

♂ ♀, 29–34 mm. Face and head green, extremely narrowly white between the antennae. Palpus with third joint in ♂ rather short, in ♀ quite moderate; red above, white beneath. Antennal shaft whitish; pectinations in ♂ moderately long, ochreous. Thorax and abdomen dorsally green, the latter with small white spots and white anal extremity. Fore and middle legs crimson above and on inner side; hindleg white, hindtibia in ♂ somewhat dilated, with slender pencil.

Forewing very broad; SC^1 free (in one wing of one example exceptionally running into C), R^1 not or scarcely stalked, M^1 separate; very pale blue-green, so densely marked with bright green as to leave only fine spots and strigulation of the pale colour (similar to *pulchraria* Swinh.); costal edge narrowly pink, becoming more ochreous towards apex; discal dot small, black; no other markings.—*Hindwing* ample, apex somewhat squared, termen bluntly elbowed at R^3 , M^1 separate at origin from R^3 ; concolorous with forewing; a small black discal spot on DC^3 , a more elongate green, posteriorly black-marked one on DC^2 . Underside paler, unmarked; costal edge of forewing as above.

Nairobi, British East Africa, 3 ♂♂, 1 ♀, April 21–May 3, 1911 (T. J. Anderson), all in coll. Brit. Mus.; the type (♂) dated May 3. Also a ♂ from the same locality, May, in coll. Bethune-Baker.

Differs from *neavei* Prout, which also has a double discal spot on the hindwing, in its much brighter, yellower-green colour, pink costal edge of forewing, much shorter palpus, etc.

67. *Prasinocyma* (?) *debilis* spec. nov.

♂ ♀, 25–28 mm. Head and face green, narrowly white between the antennae. Palpus green above, whitish beneath. Antennal shaft white, pectinations in ♂ strong and coarse, much as in *Thalassodes*. Thorax and abdomen green above, whitish beneath, abdomen dorsally with small white spots at ends of segments. ♂ hindtibia with hair-pencil.

Wings green, smoothly scaled.—*Forewing* with extreme costal edge yellowish; a dentate antemedian white line which does not reach costal margin, its deepest tooth pointing distad on the submedian fold; postmedian also dentate, but scarcely traceable except as a row of white dots on the veins, forming an outward curve through most of its length, incurved behind M^2 ; a small dark green cell-spot; terminal line slightly darkened; fringe concolorous.—*Hindwing* similar, without first line.

Under-surface nearly uniform whitish green, with costal edge of forewing yellow; only in the ♂ with costal part of forewing somewhat greener than the rest.

Mount Goliath, February 1911 (A. S. Meek). Type (♂) in coll. Rothschild. Also 7 ♀♀ from the same locality, January–February.

Rather larger than *fragilis* Warr. (*Nor. Zool.* x. p. 359), not of quite such a full colour, but chiefly distinguished by more strongly incurved postmedian series of dots, more approximated to termen and as a rule less connected into a line, the larger, darker cell-spot not accompanied by white scales, and the different

underside of forewing, that of *fragilis* having a bright green median shade. I have referred, under *Gelasma submicta*, to the affinity of this species (with *fragilis*) to certain members of *Gelasma*.

68. *Prasinocyma seminivea respersa* subsp. nov.

♀, 30 mm. Differs from typical *seminivea* Warr. (*Nov. Zool.* xiii. p. 82) in its somewhat larger size and more uniform white sprinkling, the central area of the forewing, both above and beneath, containing rather less green. The postmedian line appears somewhat more regular in its course; the whitish ante-median line of the forewing is well defined, exangled on the folds and close to the posterior margin. The typical form, moreover, has a clearer white (less green-sprinkled) blotch near the tornus.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

As noted under *Anisozygia*, this species must be removed here. It is perhaps intermediate between the *fragilis* group and the following species.

69. *Prasinocyma scintillans isorrhopia* subsp. nov.

♂ ♀, 30–35 mm. Somewhat larger than typical *scintillans* Warr. (*Nov. Zool.* xiii. p. 81), the white longitudinal spots along the cell-fold more strongly developed, the tornal white markings of the forewing rather ample, the underside of the forewing quite differently coloured, being entirely concolorous with the hindwing (whitish green), only its costal edge quite narrowly dull yellowish.

Mount Goliath, January–February 1911 (A. S. Meek); ♂ (type) and 3 ♀ ♀ in coll. Rothschild, the sexes quite alike.

70. *Prasinocyma nictata* spec. nov.

♂, 26 mm. Face green. Palpus with third joint rather elongate; green above, whitish beneath. Vertex green, narrowly white between the antennae. Antennal shaft white spotted with green, the pectinations green, rather long and coarse, extending to scarcely beyond the proximal half of the antenna, altogether recalling *Thalassodes*. Thorax and abdomen green above, the latter with a rather small but conspicuous white spot at the end of each segment; beneath whitish. Hindtibia with hair-pencil.

Forewing rather deep, bright green, costally somewhat more yellowish, the extreme costal edge purplish fuscous; except in the costal region sparsely sprinkled with slightly metallic blue-white scales, a stronger cluster of which surrounds the black cell-dot, particularly on its posterior and distal sides; first line at about 3 mm., fine, whitish, slightly interrupted, not reaching costa, bent outwards on folds and inangled on M and SM²; second line near termen, consisting of a sharp series of white vein-dots and a small blotch on posterior margin, the series forming a rather regular curve from SC⁵ to SM¹ (the fold); discal spot, outside the blue-white scales, surrounded by a vague purplish-fuscous suffusion; fringe duller than ground-colour, especially in distal half.—*Hindwing* with termen slightly crenulate, a little prominent at R³; similarly coloured and marked to forewing, but without first line and with the blue-white scales somewhat reduced.

Underside without markings, hindwing and distal and posterior margins of forewing whitish, the rest of forewing more green, with costal edge yellowish at base, then somewhat fuscous.

Mount Goliath, January 1911 (A. S. Meek). Type in coll. Rothschild.

71. *Prasinocyma obsoleta subobsoleta* subsp. nov.

♀, 36-41 mm. Smaller than typical *obsoleta* Warr. (*Nov. Zool.* xiii. p. 84), less strongly bluish green, the pale lines slightly more distinct, broader, the green discal spots slightly more noticeable.

Mount Goliath, January—February 1911 (A. S. Meek), 5 ♀♀ in coll. Rothschild.

The recently described *delicata* Warr. (*Nov. Zool.* xix. p. 75, as *Chlorochroma*) seems to me somewhat doubtfully distinct from *obsoleta*, but I have not yet compared the types.

72. *Prasinocyma dentatilineata* spec. nov.

♀, 34-39 mm. Closely similar to *obsoleta*, especially the subspecies *subobsoleta*; more blue-green, at the same time with a very minute whitish irroration, the lines stronger, whiter, the antemedian more strongly outbent behind cell, inangled on SM², the postmedian strongly dentate; cell-spot darker green, concise. Both lines distinctly continued on hindwing, whereas in *obsoleta* the first is here faint or often obsolete; discal spot nearly as on forewing. Under-surface with the dark terminal vein-dots rather strongly developed.

Mount Goliath, January—February 1911 (A. S. Meek), 4 ♀♀ in coll. Rothschild.

Two ♂♂, taken at the same time and place, measuring 28-31 mm., possibly belong to this species, being of the same colour and similarly marked, but are very distinct in having on each wing a rather large, black, faintly red-tinged discal dot and strong black dots at the vein-ends; costa of forewing slightly more reddish, darker beneath.

The colour of this species is, except for the minute white irroration, almost exactly that of *punctulata* Warr. (*Nov. Zool.* x. p. 357), which has a red face, finer pale lines, more broadly yellow costal margin of forewing, etc.

73. *Prasinocyma ruficollis* spec. nov.

♀, 40-43 mm. Rather narrower-winged than *obsoleta*, palpus longer (about three times diameter of eye), red above; face with its upper edge very narrowly red, occiput and collar red; wings of the yellowish green of *strigicosta* Warr. (*Nov. Zool.* xix. p. 77, as *Chlorochroma*), forewing with costal edge reddish, both wings with discal spot rather large, very distinct, black mixed with red, weakly discernible beneath, terminal black dots strong though very small.

Mount Goliath, February 1911 (A. S. Meek), 2 ♀♀ in coll. Rothschild.

Apart from other distinctions, the bright red on head and collar will prevent possible confusion with *strigicosta*.

74. *Prasinocyma dioscorodes* spec. nov.

♂♀, 51 mm. Face green; vertex white; occiput green. Palpus green, white beneath, third joint in ♀ elongate. Antennal shaft white; pectinations in ♂ long and coarse, not continuing quite to two-thirds. Thorax and abdomen green dorsally, the latter with rather strong white spots at ends of segments.

Forewing with apex acute, tornus well defined, SC¹ anastomosing with C, R¹ stalked, DC² sometimes strongly incurved; dark dull green, with costal edge

narrowly whitish ; lines white, marked by more or less wedge-shaped spots on the veins and folds ; first from one-sixth costa, very oblique outwards to submedian fold, then oblique inwards ; postmedian from SC^2 or R^1 at about five-sevenths, the spots on R^3-M^2 nearer termen, those on SM^2 and hindmargin nearer base, somewhat confluent, in the ♀ increased to a white blotch which almost reaches submedian fold ; discal spot blackish ; fringe with a fuscous line at base, distally white, darker-chequered opposite the veins.—*Hindwing* with discal spot and postmedian line, the latter not appreciably enlarged at inner margin ; fringe as on forewing.

Underside uniform whitish green, costal edge of forewing yellowish ; fringes without fuscous line at base, but with stronger dark spots at vein-ends.

Mount Goliath, January 1911 (A. S. Meek). Type (♂) in coll. Rothschild. Also a ♀ from Upper Setekwa River, August 1910.

Much larger than *absimilis* Warr. (*Nov. Zool.* viii. p. 193)—of which, however, *simplex* Warr. (*Nov. Zool.* xix. p. 78, as *Dioscore*) = *reversa* Warr. (*ibid.* p. 81, as *Pyrrhaspis*) may be a larger form ; darker green, the postmedian row of spots much more out of alignment, the blotch at posterior margin in ♀ much larger (wanting in the *simplex* form), the fringes more strongly spotted, especially beneath. In that species, too, the hindwing venation is almost as in *Thalassodes*, while here the discocellulars are much less oblique, the stalkings of SC^2 and of M^1 are shorter, and R^2 arises nearer to R^1 (in the ♀ very close to it).

75. *Prasinocyma infirma* spec. nov.

♀, 34 mm. Smaller than *glauca* Warr. (*Nov. Zool.* xiv. p. 135), costal margin slightly more rounded, colour less bluish green (near that of *Hemithea distinctaria* Walk.), the rows of white spots arranged about as in *glauca* but much smaller, the spot on SM^2 narrow, oblique outwards, extending so as to reach posterior margin, cell-dots smaller, costal edge less bright yellow, fringe green, the dark terminal dots obsolete above, very small beneath.

Abdomen with small white dorsal spots. Forewing with SC^1 anastomosing with C, R^1 stalked.

Mount Goliath, January 1911 (A. S. Meek). Type in coll. Rothschild.

76. *Prasinocyma deviata* spec. nov.

♂ ♀, 30–31 mm. Face with a few fine, projecting hairs ; green, somewhat paler below. Palpus little elongate, second joint with a few fine, projecting hairs beneath ; green, paler beneath. Vertex narrowly white ; occiput green. Antennal shaft white ; pectinations green, long, strong, ending rather abruptly at about four-fifths. Thorax and abdomen dorsally green, the latter with one or two small white spots. Hindtibia in ♂ little dilated.

Forewing with apex pointed ; SC^1 anastomosing with C, R^1 stalked ; bluish green (very pale blue-green with dense deep green irroration), the lines fine, paler, respectively followed and preceded by olive-green shades (narrow bands) ; first from costa at about one-third, excurved anteriorly, then nearly vertical ; second from costa at less than 2 mm. from apex, very slightly excurved at first, then oblique and very faintly incurved to posterior margin at scarcely beyond two-thirds ; a small indistinct dark cell-spot near the first line.—*Hindwing* with termen faintly crenulate, slightly bent at R^3 ; marked as forewing, the first line curved, nearer base than on forewing, second rather similarly formed to that of forewing, but not incurved.

Under-surface pale green, costal margin of forewing narrowly pale ochreous, both wings with faint traces of darker postmedian line or band.

Mount Goliath, January—February 1911 (A. S. Meek). Type (♂), two other ♂♂ and one ♀ in coll. Rothschild.

77. *Prasinocyma venata* spec. nov.

♂ ♀, 35–38 mm. Closely similar to the preceding but much larger, ground-colour rather paler, the veins standing out distinctly darker, the lines scarcely paler than the ground-colour, thus chiefly indicated by the accompanying olivaceous bands; first line on forewing less strongly curved costally, on hindwing straight, second line rather farther from termen; both wings with distinct dark green cell-mark, extending the entire length of the discocellulars. Abdomen without white dorsal spots. Face and palpus normal, the latter with third joint rather longer than in *deviata*.

Mount Goliath, January—February 1911 (A. S. Meek). Type (♂), 8 other ♂♂ and one ♀ in coll. Rothschild.

78. *Prasinocyma tripuncta* spec. nov.

♀, 32–34 mm. Face green; vertex white; occiput green. Palpus little longer than diameter of eye, third joint relatively short; green, beneath white. Thorax and abdomen green above, whitish beneath.

Forewing with SC^1 free, R^1 stalked (in the type specimen only very shortly); subdiaphanous dull green marked with rather deeper and brighter green; costal edge ochreous; a small opaque green patch at base, followed by green sprinkling, which under the lens is seen to consist of interrupted, longitudinally arranged scaling, its distal boundary vague, especially costally, but apparently at about 4 mm. on costal margin, crossing M at 3.5 mm. and here marked by a very distinct (less distinct in cotype) dark green spot, then running outwards along submedian fold to 5.5 mm., finally about vertical to posterior margin; cell-spot dark green; postmedian line deeply lunulate-dentate, the teeth directed distad on the veins, that on R^3 projecting much less than those on R^1 , R^2 , M^1 and M^2 , the inward curve on submedian fold rather strong.—*Hindwing* with C approximated to cell for some distance near base; a discal dot and lunulate-dentate postmedian line.

Under-surface paler, almost unmarked, costal margin of forewing yellowish ochreous; discal dots faintly indicated.

Mount Goliath, January—February 1911 (A. S. Meek). Type and cotype in coll. Rothschild.

By texture, scaling, etc., certainly a *Prasinocyma*, though the rather short palpus only just escapes confusion with *Chlorocoma* Turner.

79. *Prasinocyma bipuncta* spec. nov.

♀, 29 mm. Very similar to the preceding, differing as follows:

Rather smaller; head entirely green, except a very narrow white fillet between the antennae; palpus about half as long again as diameter of eye, the third joint very slender and rather elongate (measuring about .5 mm.).—*Forewing* with SC^1 anastomosing with C and at a point with SC^2 , R^1 separate; rather more whitish green, the darker scaling rather sparser and more uniformly distributed; costal edge more narrowly and less brightly ochreous above, scarcely ochreous beneath;

subbasal green shading nearly obsolete, on the contrary, a distinct antemedian line present, lunulate-dentate, the teeth pointing basewards on M and SM²; no dark green spot on M; discal spot black; postmedian line with the tooth on R³ as prominent as those on R¹ R², and M¹; that on M², on the contrary, much less prominent, the inward curve on submedian fold thus appearing less deep.—*Hindwing* with C touching cell at a point only, then rapidly diverging; black discal spot and postmedian line nearly as on forewing.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

80. *Prasinocyma signifera superba* subsp. nov.

♀, 31–32 mm. Larger than typical *signifera* Warr. (*Nov. Zool.* x. p. 360), from the Aroa River, and recently obtained from the Oetakwa River; discal mark of forewing slightly, of hindwing much larger (2.5 mm. × 1.5 mm.), the latter without white circumscription, almost entirely ochreous, strongly overlaid with bright red, the scattered blackish atoms about as in the type form.

Mount Goliath, February 1911 (A. S. Meek), 2 ♀♀ in coll. Rothschild.

81. *Prasinocyma geometrica* spec. nov.

♂, 29 mm. Face, fillet, and antenna whitish. Palpus slender, moderately elongate; green above, white beneath. Crown of head, dorsal surface of thorax, and base of abdomen green; abdomen posteriorly more shaded with fuscous.

Forewing with distal margin faintly subcrenulate, more oblique posteriorly to M¹ than anteriorly; subdiaphanous grey-green, the basal area and the region of the cell-spot somewhat dusted with fuscous; a fuscous spot near base, another on SC before first line; first line fuscous, deeply and irregularly lunulate-dentate, somewhat interrupted, only reaching from SC to posterior margin, deeply dentate inwards on M and rather less deeply on SM²; a rather large roundish fuscous spot on cell-fold close to end of cell, almost immediately followed by a biangulate fuscous mark which occupies DC² and part of DC³, then runs outward, is sharply angled again on the radial fold, and terminates at the posterior extremity of cell; postmedian line strongly and irregularly lunulate-dentate, darker grey-green, only marked with fuscous at the extremities of a few of the teeth between the veins; arising 4 mm. before apex, strongly outbent at R¹ and with a very deep curve inwards behind M²; termen with a row of fuscous spots at vein-ends.—*Hindwing* crenulate, with a slightly sharper point at R³; discal, postmedian, and terminal markings as on forewing.

Underside whitish green, the discal markings faintly showing through.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

Perhaps nearest to *caniola* Warr. (*Nov. Zool.* x. p. 360), but abundantly distinct. The peculiarly formed discal marks, with the aid of some illusion from the fuscous dusting, suggest in some aspects the typical "looping" posture of a Geometrid larva, the roundish spot representing the head, the biangulate mark the body.

82. *Prasinocyma vagrans* spec. nov.

♂, 28 mm. Closely related to *vagabunda* Warr. (*Nov. Zool.* x. p. 361) in structure, colour, and markings. Much smaller, of a slightly fuller green, the markings rather more heavily punctuated in places with rust-colour; postmedian

line right-angled on M^1 (in *vagabunda* only faintly denticulate). Underside of forewing with costal edge broadly tinted with rust-colour, a discal mark on DC^4 the same; of hindwing without spots at ends of R^1 and R^3 . The hindleg appears less dilated, and I cannot find a hair-pencil.

Mount Goliath, February 1911 (A. S. Meek). Type in coll. Rothschild.

83. *Prasinocyma phoenicogramma* spec. nov.

♀, 22 mm. Face red; vertex white; occiput red. Palpus scarcely half as long again as diameter of eye, third joint not much elongate. Thorax and abdomen dorsally greenish.

Wings rather pale yellowish green.—*Forewing* with SC^1 anastomosing with C ; costal edge tinged with red; lines purplish red; first at before one-fourth, curved, not sharply defined; second from costa at beyond two-thirds, parallel with termen, nearly straight or very faintly wavy, distinct; terminal interrupted at vein-ends; discal dot minute, black mixed with red; fringe tinged with pale reddish proximally.—*Hindwing* bluntly angled at R^3 ; DC^3 oblique, M^1 almost connate with R^3 ; first line wanting; second scarcely beyond middle of wing, somewhat incurved between the radials, so as rather closely to approach the discal dot.

Underside with forewing suffused with dull reddish from costal margin to M , except at extreme termen, otherwise very pale greenish; terminal line and fringes as above.

Mount Goliath, January 1911 (A. S. Meek). Type in coll. Rothschild.

In the absence of the ♂, and of manifest relationship to any known species, the generic position of this neat little species is somewhat uncertain. The basal expansion of hindwing is sufficiently strong to justify a suspicion that the ♂ may possibly prove to be without a frenulum.

84. *Prasinocyma oxybeles* spec. nov.

♂, 30–31 mm. Face bright red in upper half, pure white in lower. Palpus little longer than diameter of eye, red, terminal joint mostly white. Vertex white; occiput narrowly bright red. Thorax above green; abdomen somewhat paler (possibly a little discoloured), marked with red dorsally, excepting the first segments, the red enclosing two or three roundish white spots. Legs pale, forefemur and tibia shaded with red.

Forewing shaped as in the Neotropical genus *Tachyphyle*, the costa being arched distally, apex acute, termen straight or even faintly subconcave, tornus pronounced; cell produced anteriorly, SC^1 free or anastomosing briefly with C , R^1 stalked; green, somewhat olive-tinted (perhaps slightly faded); costal margin crimson (especially in proximal part), extreme edge fuscous; a conspicuous crimson spot at apex, extending into the fringe; lines represented chiefly by red spots on the veins, those of the proximal series the larger, placed in a triangle on SC , cell-fold and M (at base of M^2) and a fourth on SM^2 , the connecting line very indistinct, deeply outangled in cell and in submedian area; distal series from posterior margin at beyond two-thirds, slightly oblique outwards as far as R^1 , then a little recurved, but scarcely indicated in front of SC^3 , the connecting line extremely indistinct, forming a series of deep lunules proximally to the spots; a red discal spot (in the type specimen somewhat elongate) anteriorly to R^2 and a smaller

one in the middle of DC^3 ; extreme distal margin and fringe pale.—*Hindwing* slightly elongate in the direction of termen, termen almost inappreciably bent at R^3 ; cell short (scarcely two-fifths), M^1 well stalked; no proximal markings, cell-spot slight, simple, distal series and termen as on forewing.

Under-surface strongly flushed with crimson (at base of costa of forewing deep crimson), leaving only the apical part, termen and posterior margin of forewing and all the margins of hindwing very pale green.

Mount Goliath, January 1911 (A. S. Meek), 2 ♂♂ in coll. Rothschild.

Very like *Prasinocyma* (?) *papuensis* Warr. (*Nor. Zool.* xiv. p. 134), but distinct in the absence of tail to the hindwing, the red upper part of face and rather more extended red blush on hindwing.

85. *Prasinocyma syntycha* spec. nov.

♂ ♀, 23–26 mm. Closely similar to *oxycentra* Meyr. (*Proc. Linn. Soc. New S. Wales* (2) ii. p. 888), on an average smaller, ♀ palpus rather longer, costal margin of forewing more reddish at base, the broad white costal border afterwards underlined with yellow, in apical third (or more) more broadly with red than in any *oxycentra*; distal border of both wings more broadly red, completely separating the terminal white vein-dots from the green ground-colour. The discal dots are also on an average somewhat larger, the bend in the termen of hindwing at R^3 generally slighter but varying somewhat.

Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October–December 1910 (A. S. Meek), 3 ♂♂ (including the type) in coll. Rothschild; Upper Setekwa River, August–September 1910, 3 ♂♂, 1 ♀ in coll. Rothschild; Fak-Fak, Dutch New Guinea, December 1907–February 1908, 3 ♂♂ in coll. Brit. Mus. and coll. L. B. Prout; Wataikwa River, New Guinea, August 1910 (A. F. R. Wollaston), ♀ in coll. Brit. Mus.

86. *Prasinocyma votiva* spec. nov.

♂, 28–30 mm.; ♀ 28 mm. Face and palpus green; third joint of palpus in ♀ moderately elongate. Vertex white, occiput green, a narrow band of deep golden yellow separating the two colours. Antennal shaft white, towards the tip red. Thorax and abdomen green above, whitish beneath. Foreleg reddish yellow on innerside, the coxa green.

Wings yellow-green.—*Forewing* with costal margin at base reddish, the rest pure white, in proximal half posteriorly, in distal half anteriorly edged narrowly with golden yellow; lines pale, lunulate-dentate, very indistinct except on the veins, where the teeth are minutely white; cell-dot mixed blackish and red; terminal line consisting of dark red dashes between the veins, thus intermediate between the spots of *marginipunctata* Warr. and the little-interrupted line of *laticostata*; fringe deep golden yellow, paler at tips.—*Hindwing* with termen slightly bent at R^3 ; cell-dot, postmedian, termen and fringe as on forewing.

Under-surface whitish; forewing anteriorly pale green, this colour nearly filling the cell but narrowing somewhat distally, the extreme costal edge yellow.

Mount Goliath, January–February 1911 (A. S. Meek). Type (♂), 2 other ♂♂ and 1 ♀ in coll. Rothschild.

The shape, colour and markings, and the short (sometimes very short) terminal

spurs show the close affinity of this species with the *floresaria* group. Perhaps it is a form of *laticostata* Warr. (*Nov. Zool.* xiii. p. 84), very slightly larger, bend in termen of hindwing rather more feeble, colour yellower green, fringe brighter golden, terminal line less nearly continuous, costal area of forewing beneath more differentiated.

This group and especially *marginipuncta* Warr. (*Nov. Zool.* x. p. 356, ♀ = *Oenospila peristicta* Prout, *Gen. Ins.* 129. p. 162, ♂) and *laticostata* Warr. seem to connect the genus *Oenospila* Swinh. with *Prasinocyma*, and it is to be feared (as I already hinted, *loc. cit.*) that the latter large and less specialised genus will ultimately have to be merged in the small and specialised *Oenospila*, which bears the chronologically antecedent name.

87. *Prasinocyma discoprivata* spec. nov.

♂♀, 36–40 mm. Face bright green. Palpus with third joint moderately elongate; green, white beneath. Vertex and antennal shaft white; occiput green, separated from the white vertex by a very narrow yellow band or line. Thorax and abdomen green above, white beneath; extremity of abdomen also white above; a yellow dorsal line. Legs mostly white, forecoxa green in front, foreleg smoky on upper and outer side.

Wings apple-green, shaped nearly as in *discata* Warr. (*Nov. Zool.* xiii. p. 83), the bend in the termen of hindwing inappreciable, the termen not even so convex as in most of the allies.—*Forewing* with costa yellow at base, otherwise the extreme edge pure white, narrowly separated from the ground-colour by yellow slightly mixed with reddish brown; a reddish brown spot at apex; lines very faintly pale, little noticeable; first from about one-fourth costa, oblique to posterior margin beyond one-third, slightly outbent behind M and then inbent, but much less irregular than in *discata*; second placed as in *discata* but rather more shallowly dentate; a very small blackish cell-spot touching distal side of DC³, a faint red mark on the proximal curve of DC³; a yellow terminal line dusted with red-brown proximally and with minute red-brown dots at vein-ends; fringe pale yellow.—*Hindwing* similar except costal edge, the black cell-spot not accompanied by a red mark.

Underside whitish green, costal part of forewing brighter green, including cell but narrowing to apex; costal edge of forewing yellow at base, then white, a red-brown line (thickest towards base) separating this edging from the green colour; the costal extremity of veins C and SC¹⁻³ also tinged with red-brown and a red-brown spot at apex.

Mount Goliath, January–February 1911 (A. S. Meek), 7 ♂♂, 1 ♀ in coll. Rothschild.

Together with this form were received 4 ♂♂ whose appearance is rendered strikingly different by the presence of a large deep purple-fuscon discal blotch on the hindwing, as large as in the least extreme *discata* but unicolorous. The form may be distinguished as ab. *semidiscata* ab. nov.

This species evidently belongs to the group which seems transitional towards *Gigantothea* or perhaps towards *Chrysochloroma*; SC¹ of forewing free, or anastomosing slightly with C, DC³ deeply incurved, R² of hindwing from much above middle of DC, R¹ and R³ both rather shortly stalked; hindleg with strong hair-pencil, all spurs developed.

88. *Prasinocyma perpolluta* spec. nov.

Chlorochroma polluta Warr. (*Nor. Zool.* x. p. 356) ♀, nec ♂.

♂, 35 mm.; ♀, 31–35 mm. Differs from *polluta* Warr. (♂) = *bicornuta* Warr. (*Nor. Zool.* xix. p. 75) in having the postmedian line of both wings markedly dentate (in *polluta* only faintly wavy), both lines on forewing accompanied by (or even almost replaced by) red shading, nearly the entire median area of this wing clouded with fuscous-reddish. The size seems to be on an average rather larger. I can find no other distinctions. The structure agrees; palpi in both sexes with terminal joint rather short (especially in the ♂); ♂ hindtibia strongly dilated.

Upper Setekwa River, Snow Mountains, Dutch New Guinea, 2000–3000 ft., September 1910 (A. S. Meek). Type (♂) and ♀ in coll. Rothschild. There is a ♂ from near Oetakwa River in coll. Brit. Mus., and Warren's ♀ *polluta* from the Upper Aroa River, British New Guinea, also belongs here.

Mr. Warren in his description of *polluta* mixed two forms which he has since recognised as species. The possibility is not absolutely excluded that his first idea may prove correct, in spite of the remarkable difference in the shape of the postmedian line. Unfortunately his **type** specimen (the ♂) is of the form (or species) which he has recently named *bicornuta*, and the ♀—belonging to the form which he is now regarding as *polluta*—was nameless. The dimorphism, if such it be, is in any case not sexual.

89. *Prasinocyma intermedia approximata* subsp. nov.

♂ ♀, 38–45 mm. Differs from typical *intermedia* Warr. (*Nor. Zool.* xiv. p. 131) in its larger average size and in the antemedian line of the forewing. This is about 4 mm. distant from the base both at costal and posterior margins, and is **angled outwards** on the median vein. The postmedian line is rather broader, the red discal mark better developed, both above and beneath. The angled antemedian line and the size bring it remarkably near to *lutistriga* Warr. (*Nor. Zool.* xiii. p. 84), in which, however, the first line is more oblique (from costal margin at 3 mm. to posterior margin at 5 mm.) and which lacks the pale yellow dorsal line of abdomen, which *intermedia* shares with most of the group.

Mount Goliath, January–February 1911 (A. S. Meek), type and others (♂) in coll. Rothschild; Upper Setekwa River, September 1910, a ♀ in the same collection.

90. *Prasinocyma ruficulmen* spec. nov.

♂, 48 mm. Face green. Palpus red, beneath whitish. Vertex and base of antenna snow-white, the former bounded behind by a red line; occiput green. Thorax and abdomen above green, with a long mediodorsal ridge of brick-red; beneath greenish white. Legs pale, the anterior pair darkened above and on inner side; hindtibia dilated with hair-pencil, spurs short, tarsus about two-thirds tibia.

Wing-shape and aspect of *consobrina* Warr. (*Nor. Zool.* xix. p. 75, as *Chlorochroma*). Whitish green, densely irrorated with blue-green, the veins darker and more olivaceous.—*Forewing* with costal edge red, much paler from just before first line to beyond cell; lines rather thick, orange-red; first from before one-fifth costa, oblique outwards to SC, thence straight to hindmargin at about one-fourth, weakly pale-edged proximally; second from SC⁴ at beyond three-fourths, almost straight, nearly parallel with termen, white-margined distally; cell-spot

black, in middle of DC^3 , seated on a curved red-brown mark which occupies the whole of DC^2 — DC^3 and projects a prong along the base of R^2 ; fringe red, with small obscure dark spots at vein-ends.—*Hindwing* with both lines equally strong, nearly straight, similarly white-edged; cell-spot rather small, dark green; fringe as on forewing.

Under-surface whitish green, with postmedian line faintly indicated, forewing with costal half dusted with brick-red to beyond middle, the dusting narrowing off distally; fringes brick-red with dark spots extending on to the vein-ends.

♀ quite like the ♂ but larger, expanding about 58 mm.; palpus scarcely longer than in the ♂.

Ninay Valley, Central Arfak Mountains, Dutch New Guinea, 3500 ft., November 1908—January 1909. Type in coll. L. B. Prout, also one from the same locality in coll. Brit. Mus., and I have recently seen it from near Oetakwa River, Snow Mountains, up to 3500 ft., October—December 1910 (A. S. Meek), in coll. Rothschild.

91. *Prasinocyma corolla* spec. nov.

♂ ♀, 40–44 mm. Extremely like the preceding except in its considerably smaller size. Dorsal line white, not red, less raised (more as in *consobrina*, etc.); coloration slightly duller and more uniform, veins less contrasted, especially on hindwing; lines somewhat narrower and of a duller red, first line not pale-edged proximally, on forewing dentate at M and SM^2 , on hindwing less straight than in *ruficulmen*; shading about discocellulars and base of R^2 on forewing broader but rather ill-defined; discal spot of hindwing rather darker; fringes whitish, slightly tinged with reddish proximally, preceded only by a red terminal line, on which, however, the dots at vein-ends are strong, blackish.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type (♂) and ♀ in coll. Rothschild.

Nearly related also to *rufistriga* Warr. (*Nor. Zool.* xiii. p. 85), differing in the less yellow-tinged dorsal line, greyer green wings, duller red markings, first line of hindwing incurved in submedian area, presence of red shading distally to the cell-mark of the forewing and especially in the termen and fringe; in *rufistriga* the terminal red line is weak, and not black-dotted on the veins, the fringe reddish **with a white line at base**. Moreover the ♂ hindtibia is rather thicker in *corolla*, with shorter terminal spurs.

92. *Gigantothea gigas flavimargo* subsp. nov.

♂ ♀, 38–40 mm. Smaller than typical *gigas* Warr. (*Nor. Zool.* x. p. 355), costal edge and fringes clearer golden ochreous, the redder proximal part being much narrowed, dorsal stripe of abdomen similarly clearer than in the type form; discal dots minute, green, less dark than in the type, lines fine, that of hindwing more strongly bent in middle than in the type. Second joint of palpus green above (in the type bright ochreous). The ♂ tibial armature is typical; in *minor* Warr. (*Nor. Zool.* x. p. 355) the terminal spur, are longer, and minute medians are sometimes present, and it is not quite certain that the genus is tenable.

Near Oetakwa River, Snow Mountains, Dutch New Guinea, up to 3500 ft., October—December 1910 (A. S. Meek). Type in coll. Rothschild. Also other examples from this locality and from the Upper Setekwa River, August—September 1910.

Prasinocyma flavilimes Warr. (*Nov. Zool.* xiii. p. 83) shows some similarity, but differs in the hindtibial armature, has the fringe light yellow and many other distinctions.

Strepsichlora Warr.

Strepsichlora Warr., *Nov. Zool.* xiv. p. 136 (1907).

Blechnomopsis Warr., *ibid.* xix. p. 72 (1912).

Not only in structure but also in entire facies these genera are absolutely identical, and the erection of the second was evidently an oversight. Fortunately no synonymy, I think, has been created in the species, though both *costipicta* and *nubifera* are very closely related to *inquinata*, and one or other may perhaps prove a local race of it, while *dissimilis* is equally near to *acutilunata*.

Oxychora Warr.

Oxychora Warr., *Nov. Zool.* v. p. 236 (1898).

Oxypora Warr., *ibid.* xix. p. 79 (1912).

I do not think these are more than sections of a single genus. The ♂ structure is identical, as also the facies; but there is a hitherto unrecorded distinction in the ♀ antenna, which may justify our retaining the name *Oxypora* as subgeneric.

The type of *Oxychora* (*tenuis* Warr.) was described from the ♂ alone, but I have now before me a ♀ from near Oetakwa River, Snow Mountains, Dutch New Guinea, October–December 1910 (A. S. Meek), and find it has the antenna strongly pectinate, almost as in the ♂. In *dentilinea* and *spilota*, on the other hand, the ♀ antenna is virtually simple ("closely pubescent"), as recorded by Warren; the same is the case with *batis* Warr., which I have transferred to *Oxychora*.

93. **Oxychora batis eusticta** subsp. nov.

♀. Differs from typical *batis* Warr. (*Nov. Zool.* xiii. p. 78) in having more distinct series of white vein-dots (traceable, but weak, in Warren's type) and longer terminal and toral blotches. Both series of dots on the forewing start in the brown costal margin, the first at about one-fifth, the second at about three-fourths or beyond; first outbent in cell, then nearly vertical to posterior margin; second somewhat oblique inwards to R², then outbent, again strongly inbent, rather near first line from M² to posterior margin, which it reaches about the middle. The latter series reproduced on hindwing.

♂. The ♂ of this species is hitherto undescribed; the frenulum is quite short and slender, the basal expansion of hindwing (as also in ♀) well marked; the palpus has both second and third joints slender, smooth and elongate; hindtibia moderately dilated, with hair-pencil, the tarsus rather short. Slightly smaller than the ♀, of a somewhat fuller green, the marginal blotches as a rule considerably smaller, and these (together with all the other "fleshy ochreous" parts) much more strongly coloured, redder. In the absence of the ♂ of *batis batis* it is of course impossible to say whether, or how, the present race differs from it.

Mount Goliath, January–February 1911 (A. S. Meek), 6 ♂♂, 3 ♀♀ in coll. Rothschild.

94. **Metallochlora roseifimbria** spec. nov.

♂, 27 mm. Face red. Palpus with second joint reddish above, whitish beneath, third joint above ochreous. Vertex narrowly ochreous, occiput green.

Antenna ochreous, a short proximal part unicolorous, then with the shaft red-spotted. Thorax and abdomen above green, the latter becoming ochreous towards the extremity; the crests shining deep red.

Forewing with SC^1 free, SC^2 arising close before SC^3 ; bright green as in *proximata* Warr. and subsp. *circumscripta* Warr.* costal edge ochreous with a few dark dots; discal dot dark red, a very faintly darker green line (scarcely discernible) running from it to posterior margin, parallel with postmedian; postmedian line equally faintly darker green, but rendered more apparent by a thicker, slightly paler green shade which accompanies it distally; nearly straight from costal margin before two-thirds to posterior margin at fully three-fourths; a rather narrow pale yellow line before the terminal, widening midway between the veins and enclosing elongate fuscous marks; terminal line dark, very slender; fringe rose-pink.—*Hindwing* moderately angled at R^3 ; similar to forewing, without first line, postmedian rather less oblique.

Underside yellow-green, unmarked; terminal dark marks and pink fringe nearly as above.

Vella Lavella, Solomons, March 1908. Type in coll. Rothschild.

Differs from *proximata* in the more angled hindwing, position and course of postmedian line (on both wings very much further from termen) and the brighter rose-coloured fringes.

95. *Neromia picticosta* spec. nov.

♂, 22 mm. Face dark red, lower part ochreous; vertex pale ochreous; occiput green. Palpus short, dark red. Antennal shaft pale ochreous, spotted with dark red; ciliation moderate. Thorax and abdomen dorsally green, abdomen not crested. Fore and middle legs red above and on inner side; hindtibia not dilated.

Wings dull bluish green, irrorated with white.—*Forewing* with costal margin pale ochreous, with a dark red basal streak 2 mm. in length, scarcely at all broken into spots, afterwards with a number of rather irregularly distributed red spots, the last close to apex; two broad whitish lines, the antemedian obsolescent at costa, from before one-third, slightly bent in cell, then vertical to posterior margin at a little beyond one-third; postmedian almost straight, almost parallel with termen, about 2 mm. therefrom; fringe concolorous, or slightly paler distally.—*Hindwing* with postmedian continuing that of forewing, straight to beyond M^2 , then very slightly curved away from tornus and narrowing.

Underside paler, especially the posterior part of forewing and entire hindwing; lines obsolete; forewing with costal margin as far as SC pale ochreous, almost entirely covered with red.

Antananarivo (Chuliat). Type in coll. L. B. Prout.

Probably a little faded, being of exactly the colour which is assumed by the species of the genus *Micocera* when they have been on the wing a short time. A slender, reddish frenulum is present, thus the species is certainly not a *Micocera*, but in the absence of the ♀ it cannot be positively stated that it may not have to be removed to *Chlorissa*. It may be added that ♀ material in the African species which have been referred to *Chlorissa* is much wanted; I have recently discovered that one or two are two-spurred, i.e. will have to be transferred to *Neromia*.

* *M. circumscripta* only differs from *proximata* in the slightly broader yellow line before the termen, and is possibly only an aberration.

Neurotoca Warr.

This genus must be removed from Group VI., where—pending the discovery of the ♂—I left it in my revision (*Gen. Ins.* 129, p. 228). By the kindness of Mr. A. J. T. Janse of Pretoria I have now been able to examine 2 ♂♂ of *N. endorhoda* Hmps., and to add one to my own collection, and I find that the frenulum is present. The genus may be placed next to *Neromia*, from which it differs in the pectinate antenna in both sexes, crested abdomen (this should be added to the diagnosis), etc. In the generic key it will separate from *Pseudhemithea* under No. 23 :

Antenna pectinate	<i>Neurotoca.</i>
Antenna not pectinate	<i>Pseudhemithea.</i>

96. Diplodesma ussuriaria (Brem.).

Iodes ussuriaria Brem. *Mém. Acad. Sci. St.-Pét.* viii. p. 77. t. 6. f. 24 (1864).

Hemithea ussuriaria Stgr. *Cat.* (ed. 3). p. 265 (1901); Prout, *Gen. Ins.* 129. p. 170 (1912).

Hemithea eluta Wileman, *Tr. Ent. Soc. Lond.* p. 337 (1911).

Diplodesma eluta Prout, *Gen. Ins.* 129. p. 252 (1912).

I had never been able to satisfy myself as to the species represented by Bremer's poor figure and brief description until September last, when Herr R. Püngeler, of Aachen, kindly sent for my inspection examples from his collection. There is no doubt that his determination is correct, and that the insect is the same which has been recently described by Wileman as *eluta* and which I placed in *Diplodesma* on account of the stalking of SC¹. Like my *pudefimbria*, however, it shows in fresh specimens a crested abdomen, and it is still an open question whether my *Diplodesma*, sect. iii., would be best treated as an aberrant section of *Hemithea* or of *Diplodesma*, or as a separate genus intermediate between the two.

97. Omphax ornatimargo spec. nov.

♀, 26–31 mm. Face, vertex, palpus, and base of antenna deep purple-red; collar ferruginous. Thorax green above, pale beneath. Fore and middle legs partly purple-red. Abdomen pale, anteriorly more ochreous, a minute ferruginous, purple-mixed crest at base.

Forewing broad, even for this genus, termen slightly more ventricose than in the other species; SC¹ in both examples anastomosing at a point with C, free from SC², DC³ extremely oblique; ground-colour as in *pluntaria* Guen., costal margin bright yellowish ferruginous, the edge basally dark purple-red; termen ferruginous, overlaid with a reddish-fuscous pattern consisting of somewhat triangular markings, their apices on the veins, their bases narrowly connected by reddish-fuscous shading between; fringe ferruginous, spotted and dusted with reddish-fuscous.—*Hindwing* the same, the costal margin paler, not marked with red at base.

Under-surface dirty pale yellowish, somewhat dusted with reddish.

Minna, Northern Nigeria, September 17, 1910, and July 1910 (Scott Macfie), type and co-type respectively in coll. Brit. Mus., the latter the larger.

98. Rhodesia depompata spec. nov.

♂ ♀, 25–26 mm. Face dirty olive with a slight reddish admixture; vertex white, occiput pale green. Palpus in ♂ shortish, third joint not strongly elongate;

in ♀ with third joint rather long and slender, but much less extreme than in *albociridata* Saalm., mostly purple-red. Antennal shaft white in proximal half, more reddish in distal; ♂ with rather long pectinations, ♀ not pectinate. Thorax and base of abdomen dorsally green; abdomen otherwise whitish, mixed with purple-reddish dorsally and with two or three small narrow crests.

Forewing bright green, costal edge white mixed with purple-pink (lighter than in *viridalbata*, but otherwise similar); discal dot white, a smaller white dot anterior to it on DC^2 (as in *viridalbata*); lines nearly obsolete, the postmedian faintly indicated by a few minute white vein-dots; a fine dark reddish terminal line interrupted by minute white dots at the vein-ends; fringe nearly as in *viridalbata*.—*Hindwing* with C anastomosing with SC to middle of cell; marked as forewing, except the costal edge.

Under-surface whitish green, costal edge of forewing reddish, becoming pale distally; both wings with fine fuscous terminal line, interrupted at the veins.

Johannesburg (J. P. Oregoe). Type (♂) and 2 ♀♀ in coll. Brit. Mus., ex coll. Distant.

In the nearly unmarked wings, with purplish fringes, this species rather recalls a *Heterorachis* than a *Rhodesia*, and even in structure it is not absolutely typical, the less extreme palpus being an irregularity.

99. *Hierochthonia robusta* spec. nov.

♀, 16 mm. Face ochreous, head otherwise whitish. Palpus fully as long as diameter of eye, rather stout, ochreous, more whitish towards base. Antennal shaft whitish at base, becoming more ochreous; shortly pectinate. Thorax and abdomen green above, whitish beneath; abdomen robust. Legs more ochreous.

Forewing shaped as in *petitaria* Chr., or termen slightly more oblique; SC^1 well free, R^1 connate with SC^{2-3} , DC^3 curved, becoming strongly oblique, M^1 connate or nearly so; pale yellow-green, closely irrorated with bright grass-green, the resultant tone about as in *petitaria*; costal edge pale yellowish; no markings, only in some lights a faint suggestion of a paler postmedian line, placed rather far distally, and of a darkening of the green colour in the position of the cell-spot. Fringe green proximally, more yellowish distally.—*Hindwing* less elongate costally than in *petitaria*; C anastomosing with SC to about one-half the cell; DC^3 somewhat curved, becoming oblique, R^2 from little above middle of DC^1 , M^1 short-stalked; concolorous with forewing, unmarked or with faint indication of cell-spot.

Port Sudan, Red Sea (N. E. Waterfield), 2 ♀♀ in coll. Brit. Mus.

The cotype is a sport in venation, SC^2 in both wings bifurcate from rather near its point of origin.

Chloroparda Prout.

Concerning this genus I wrote (*Gen. Ins.* 129, p. 140): "It is unfortunate to be compelled to found a genus upon a species of which we have only the ♀ before us, but the combination of characters marks it out as abundantly distinct. Should the ♂ frenulum prove to be absent, it must be transferred to the vicinity of *Thalera*, from which it differs widely in venation, but little otherwise." I have now seen a ♂ in coll. Rothschild (also from Burma, the only known habitat), and find, as I suspected, that the frenulum is wanting; antennal pectinations long. I propose placing it next after *Thalera*, and in my key to Group VI.,

after No. 14 ("Hindtibia with terminal spurs only"). Its separation can quite simply be effected thus :

Forewing with SC ² arising after SC ⁵	<i>Chloroparda</i> .
Forewing with SC ² arising before SC ⁵	the rest.

Dysdamartia gen. nov.

Face smooth. Palps in both sexes quite short, hairy beneath. Tongue present. Antenna not quite one-half length of forewing, in both sexes bipectinate almost to apex, the earlier branches long in ♂, moderate in ♀. Pectus and femora glabrous. Hindtibia in both sexes with terminal spurs only. Abdomen slightly crested. Frenulum wanting in both sexes.—*Forewing* with costa arched, especially at base, apex roundly prominent, termen strongly excised between apex and R³, strongly prominent between R³ and M¹; cell about one-half, DC curved, becoming oblique, SC¹ from near end of cell, anastomosing at a point or shortly with C, SC²⁻⁵ long-stalked, SC² separating first, R¹ separate, M¹ well separate.—*Hindwing* with termen rounded, only straight between R¹ and R³, tornus rather pronounced; cell about one-half, DC shortly incurved anteriorly, then rather strongly oblique outwards; C anastomosing at a point or scarcely more with cell near base, SC² stalked, R² from near R¹, M¹ well separate.

Type of the genus : *Dysdamartia quaesita* spec. nov.

Near *Chloroparda*, but with SC² of forewing arising before SC⁵, termen of hindwing not excised, etc. Differs also from *Thalera* in shape, abdominal crests, etc. The sexes differ greatly in markings in the only known species, which is not at all the case in those genera. In my key, Group VI., the wording under No. 13 had better be slightly changed, as *Dysdamartia* is in a measure intermediate. If we read "Abdomen **strongly** crested" for *Lophostolu* and "Abdomen not or **slightly** crested" for the rest, no confusion can arise. The new genus can then be introduced at No. 19 :

Abdomen somewhat crested; forewing with termen deeply excised

Dysdamartia.

Abdomen not crested; forewing with termen smooth. *Cymatoplex*; *Mixocera*.

100. *Dysdamartia quaesita* spec. nov.

♂, 22-23 mm. Face and palps red. Antennal shaft pale straw-colour spotted with red. Vertex and thorax above green. Thorax beneath, with legs, largely reddish. Abdomen ochreous, mixed with reddish, especially dorsally.

Forewing rich deep green, the costal edge reddish ochreous, a small (occasionally larger) whitish spot between R³ and M¹ at their base, edged, irregularly and variably, with a rim of mixed black and red scales; fringe shining pale yellowish, mostly purple-blackish at base, and with spots of the same colour extending irregularly and to variable distances across the fringe, the largest and most prominent covering it between R³ and M¹.—*Hindwing* pale fleshy, sometimes whitish, always darkening at termen and especially at tornus and inner margin, the dark tornal blotch sometimes mixed with fuscous, always separated from the inner-marginal darkening by a narrow pale space; fringe concolorous with that of forewing, none of the dark spots (or only that at apex) crossing it completely.—*Underside* bright reddish, paler towards inner margin of both wings, especially of forewing; costal edge of forewing bright ochreous.

♀, 26-28 mm. Differs as follows: *Forewing* above rather less bright green and with a very large blotch (either grey or purple-red) from tornns to R¹, encroaching into cell, on posterior margin occupying at least one-third of wing, on termen reaching at least to M², its proximal edge more or less indented between M and SM²; a narrow distal border of the same colour adjoining the blotch, becoming wider round the wing-excision but very narrow again at apex.—*Hindwing* grey, faintly violaceous, in the red-blotched examples strongly suffused with reddish, especially towards inner margin; distinct traces of a darker, pale-edged median line, slightly concave; fringes less darkly marked than in ♂. *Underside* grey, except costal edge of forewing; both wings (especially forewing) with some reddish suffusion basally.

Mount Goliath, January—February 1911 (A. S. Meek), a good series of both sexes in coll. Rothschild; the type ♂ dated February.

Rather variable apart from the sexual dimorphism. In one ♂, in which the normally present spot is abnormally large and crosses M¹, there is a second, similar but much smaller spot posterior to it, touching M². Two ♀♀ taken in January, both red-blotched, vary in the depth of the colour, and one has a distinct red line along R³ and red bar along R² connecting the blotch with the distal border.

Dichordophora gen. nov.

Face smooth. Palpus rather strong, second joint reaching beyond frons, rough-scaled above and beneath, third joint distinct, moderate. Tongue developed. Antenna in both sexes pectinate to beyond three-fourths, the branches in ♂ rather long, in ♀ short. Pectus somewhat hairy. Femora nearly glabrous. Hindtibia in ♂ not dilated, in both sexes with terminal spurs only. Abdomen not crested. Frenulum wanting in both sexes. Wings with termen entire. Forewing with cell less than one-half, DC strongly incurved, SC¹ from cell, free, or anastomosing with C, or with C and SC², M¹ not stalked; hindwing with cell less one-half, DC³ strongly curved, C approximated to cell to about one-half, then rapidly diverging, SC² stalked, M¹ separate.

Type of the genus: *Dichordophora phoenix* (Pront) = *Dichorda* (?) *phoenix* Pront, *Gen. Ins.* 129 p. 128.

I described the type species from the ♀ sex only, and was consequently unaware of the absence of the ♂ frenulum; but a reference—even provisional—to *Dichorda* was quite inexcusable, indicating an insufficient examination, for I find the ♀ hindtibia lacks the median spurs. Through the kindness of Mr. J. A. Grossbeck, who has sent me the ♂, I am now able to give a correct generic account of the species. It is quite distinct from the other two-spurred genera of the New World in which the ♂ frenulum is absent (*Anompha*, *Eucrotes*, and ? *Dyscheilia*). Without disarranging the existing key to the genera, it can be introduced in No. 9 thus:

Palpus moderately long, rough-scaled; hindwing with C approximated to cell to about one-half *Dichordophora*.

101. *Omphacodes minima* spec. nov.

♂, 16 mm. Face reddish? (discoloured); vertex white, occiput green. Palpus with second joint rather long, third joint moderate. Tongue apparently wanting. Antennal shaft white, pectinations long, brownish. Thorax and abdomen dorsally green, spotted with cream-colour.

Forewing with SC^1 connate with SC^{2-5} , anastomosing with C, R^1 stalked, M^1 connate; bright green with costal edge white, small white discal dot and wavy post-median line, the latter not well expressed except as white vein-dots, slightly excurved anteriorly and incurved in submedian area; termen with white dots at the vein-ends; fringe whitish, dark-spotted opposite the veins.—*Hindwing* similar, the postmedian line still more ill-expressed.

Underside paler, unmarked.

Zungeru, Northern Nigeria (G. B. Simpson). Type in coll. Brit. Mus.

102. *Hemistola tricolorifrons* spec. nov.

♂, 41–42 mm. Face red above, strongly mixed with green in middle, white below. Palpus minute (scarcely half diameter of eye), red above, white beneath. Antennal shaft white, pectinations long, ochreous. Head green, with a narrow white fillet between the antennae. Thorax and abdomen green above, white beneath. Fore and middle legs red above and on inner side; hindleg slender, tibia not dilated.

Wings unusually broad, smooth-margined, thinly scaled, subdiaphanous; green, strigulated with white, as in *Prasinocyma*, no markings, fringe concolorous.—*Forewing* with SC^1 anastomosing shortly with C, R^1 shortly stalked, M^1 connate; costal margin very narrowly ochreous, still more narrowly edged with red.—*Hindwing* with C shortly approximated to cell, moderately rapidly diverging, M^1 shortly stalked.

Forewing beneath paler green, becoming whitish posteriorly; costal edge bright red in proximal half. Hindwing beneath whitish.

W. slopes of Mount Kenya, 5000–8500 ft., February 18, 1911 (S. A. Neave). Type in coll. Brit. Mus. Also a precisely similar ♂ from Lamu Island, February 18, 1912 (S. A. Neave).

Apart from the structure this species strongly recalls *Prasinocyma ampla* Warr. (*Nov. Zool.* xi. p. 465), though even broader-winged. The hindwing shows a very strong basal expansion and no trace of frenulum, otherwise I should have suspected a relationship with the slender-winged species of *Heterorachis* (*diaphana* Warr. and *asyllaria* Swinh.).

Lophostola Prout.

Since publishing my revision I have still further confirmed the absence of the frenulum in this interesting genus (cf. *Gen. Ins.* 129, pp. 229, 252). It is the only one, so far as is yet known, which has preserved the *strong* abdominal crests (which tend to disappear in the specialised forms) with the loss of the ♂ frenulum, and my “perhaps,” in discussing the subject on p. 2 of my work, can be deleted.

103. *Lophostola cara* spec. nov.

♂. Differs from *annuligera* Swinh. (*Ann. Mag. Nat. Hist.* (8) iii. p. 94) in its smaller size, slightly brighter, less bluish green colour, lack of dark spotting on the ochreous costal margin of forewing, bright red discal spot on each wing, not pale-centred and only very finely and indistinctly pale-surrounded, more yellowish (not whitish) fringes, with no prominent fuscous line at base, the spots in the middle of fringe more reddish fuscous; abdominal crests likewise somewhat more reddish. In addition, the two lines of the forewing do not terminate in markedly

enlarged white spots on posterior margin; on the other hand, the first line is traceable, almost uninterrupted, as far as to vein M, excurved in submedian area. Tooth at R³ of hindwing somewhat sharper.

Bibiana, Gold Coast, November 1911 (H. G. F. Spurrell). Type in coll. Brit. Mus.

As a typical specimen of *annuligera* was taken by Mr. Spurrell in January 1912 at the same locality, it is just possible that, in spite of its different aspect, *cara* is a seasonal form of that species.

104. *Berta arfakensis* spec. nov.

♂ ♀, 24 mm. Shape, coloration, and aspect of *chrysolineata*, which also occurs in the Ninay Valley. ♂ antenna pectinate for less than half its length (in *chrysolineata* to beyond one-half).—*Forewing* with basal area white, with only a very few olive markings; an olive band from middle of posterior margin (where it is nearly 2 mm. in width), outcurved a little between the medians, thence parallel with termen, projecting strong teeth distad along the veins; a band running from this band at vein M, crossing the cell to costa at about one-fourth; both these bands enclose large white spots, which tend in places to break them up into pairs of lines; a few olive spots in the enclosed white costal triangle, one on midcosta being the largest; a zigzag olive subterminal line, thickening into two blotches proximally between the radials; a terminal line similarly thickened; fringe chequered white and pale olive.—*Hindwing* with irregular olive blotching at ends of cell, enclosing a round white spot in the projecting lower arm of cell and thickening and extending between the medians so as to join the outer line, which is strongly dentate; subterminal and terminal lines and fringe nearly as on forewing.

Differs in venation in having the angulation of the discocellulars exaggerated in both wings, R¹ of forewing longer stalked, SC¹ still arising beyond it, SC² only just before, or even just after, SC⁵, often anastomosing with SC¹. Superficially, *arfakensis* is best distinguished by having on both wings a continuous white band between the median and distal olive markings.

Ninay Valley, Central Arfak Mountains. Dutch New Guinea (3500 ft.), November 1908—March 1909. Type ♂ in coll. Rothschild with; others of both sexes; also in coll. Brit. Mus. and coll. L. B. Prout.

105. *Berta fenestrata* spec. nov.

♂ ♀, 23 mm. Face and head olive-green, vertex narrowly white. Palpi olive above, white beneath. ♂ antenna pectinated to about two-thirds, the branches long. Thorax and abdomen olive-green above, with white spots; beneath white. Fore and middle legs olive-green, white beneath; hindleg white, faintly tinged with olive above.

Wings dull olive-green, marked with white.—*Forewing* broad, SC¹ anastomosing with C at a point or more, SC² arising opposite SC⁵, not (as in all the *olivescens* I have examined) anastomosing with SC¹; discocellulars of pronounced *Berta* shape; base spotted with white; a white subbasal band not reaching costa, partly confluent (especially just behind M) with the succeeding; a very irregular antemedian white band, projecting and thickening distally in cell and still more in submedian area; a discocellular white patch, broadest anteriorly, where it

encloses a small olive-green spot ; an elongate white costal patch anteriorly to this ; a postmedian band formed as in *albiplaga* Warr. (*Proc. Zool. Soc. London*, 1893, p. 357, t. 31, f. 5), but rather broader, a more broken band proximally to it, consisting of a broad mark from costa nearly to R^2 (preceded proximally by a small isolated white spot between SC^5 and R^1), a quadrate, sub-oblong patch lying on (anteriorly to) R^3 and some smaller spots in posterior half of wing ; subterminal spots small, placed on the veins ; fringe with white spots in proximal half, continued more weakly in distal, placed opposite the veins.—*Hindwing* similar to that of *albiplaga*, the postmedian band (correspondingly to that of forewing) somewhat thicker, especially in the type specimen (δ).

Under-surface white, with extremely feeble traces of olive markings, especially costally on the forewing.

Vella Lavella, Solomon Islands, March 1908 (type, δ) ; Arawa, Bougainville, December 1907 (cotype, η) ; both in coll. Rothschild, collected by A. S. Meek.

Possibly a local race of *albiplaga* Warr. (of which I only know the η), with much more white on forewing. The smaller size and much increased white markings distinguish it from *olivescens* Warr., even if the venational difference prove inconstant ; the shorter non-pectinate part of the δ antenna differentiates it at once from the *chrysolineata* group.

106. *Comostolopsis subsimplex* spec. nov.

δ η , 16–18 mm. Face bright orange ; vertex narrowly white between antennae, crown otherwise green. Palpus bright orange, second joint pale beneath, third joint strongly elongate. Antennal shaft whitish, δ pectinations more reddish than in *stillata* Feld. Thorax and abdomen green dorsally. Foreleg marked with red above and on inner side.

Wings rather bright green, much less blue than in *stillata*, slightly darker than in *simplex* Warr., costal edge of forewing extremely narrowly ochreous ; both wings with dark red discal dot and terminal line, the latter interrupted at the vein-ends and thickened midway between, and with golden yellow fringes (in the δ slightly more reddish) ; forewing with two ill-expressed, wavy, whitish, transverse lines, the outer apparently somewhat dentate, incurved somewhat between the radials and posteriorly, continued on hindwing. In the δ the lines are marked with small red dots on SM^2 , that of the antemedian rather larger.

Under-surface whitish green, the forewing with decided red suffusion except at posterior margin ; fringes yellowish.

Autananarivo, δ (type) and η (Chulliat) in coll. L. B. Prout.

107. *Pyrrhorachis* (?) *marginata* Warr.

Chlorochroma (?) *marginata* Warr., *Nov. Zool.* vi. p. 21 (1899).

This species was accidentally omitted from my revision. Described from a single η , from Little Key Island. Palpus long and slender ; hindtibia with two very unequal pairs of spurs (Warren overlooked one of the medians) ; wing-shape somewhat intermediate between that of normal *Pyrrhorachis* and that of *Chloëres* ; forewing with SC^1 about connate, M^1 stalked. I am inclined to suspect it is an aberrant *Pyrrhorachis*, but until the δ is discovered it cannot positively be proved that it is not a *Prasinocyma* (*Chlorochroma* Warr.), as tentatively suggested by its author. The discocellulars are not at all like those of *Comostola*.

108. *Pyrrhorachis rhodometopa* spec. nov.

♂, 22 mm. Face green, forehead partly crimson. Vertex crimson, between antennae, the rest of the head green. Antennal shaft crimson in basal half, slightly spotted with whitish. Thorax above red in middle, patagia and tegulae green. Base of abdomen green dorsally, dorsum otherwise red.

Wings bright apple-green.—*Forewing* with costal margin yellowish, densely sprinkled throughout with deep crimson; distal margin red, preceded by a very fine yellow line which runs out into dots at the vein-ends; fringe pink proximally, paler and duller distally.—*Hindwing* with termen and fringe as on forewing.

Wings beneath paler, forewing with costal margin fuscous, both wings with elongate fuscous internodal spots at termen, fringe lighter fuscous.

Mount Goliath, January—February 1911 (A. S. Meek), 2 ♂♂ in coll. Rothschild.

Closely related to *ruficeps* Warr. (*Nov. Zool.* xiii. p. 89), possibly a local race, but larger, with less of the face red, the red borders of the wings much narrower, the costal more crimson red, not dotted with fuscous; termen of forewing rather less rounded, hindwing rather less elongate, etc.

Androzeugma gen. nov.

Face smooth. Palpus rather slender, with appressed scales; in ♂ rather short, in ♀ moderate, third joint in both sexes distinct, in ♂ rather short, in ♀ more elongate. Tongue present. Antenna in ♂ thick, almost simple, shortly lamellate; in ♀ simple. Femora glabrous. Hindtibia in ♂ not dilated, in both sexes with a pair of short terminal spurs, medians wanting. Abdomen not crested. Wings delicate, rather thinly scaled, termen almost smooth, that of hindwing very slightly bent at R³. Frennulum wanting in both sexes. Forewing with cell rather short, SC¹⁻⁵ stalked, SC¹ free or anastomosing with C, SC² normal, R¹ stalked with subcostals, M¹ stalked; hindwing with cell short, DC³ moderately oblique, C in the ♂ anastomosing with SC¹, shortly or to less than one-half cell, in ♀ merely appressed, SC² rather long-stalked, M¹ stalked.

Type of the genus: *Androzeugma hapala* spec. nov.

Belongs to my Group VI. Although the more slender build, thinner scaling, coloration, etc., strongly suggest that it has no really near affinity with *Miroceera* Warr., the structural variations in the last-named leave few characters which can be rigidly enforced as differential in all cases. The palpal differences are the most convenient; the anastomosis of C of the hindwing with the cell in the *male* is stronger than has been observed outside the five genera separated off at No. 2 in my key, but, curiously enough, is not shared by the ♀. To adapt my key to the reception of this new genus it will be necessary to read (*Gen. Ins.* 129, p. 18):

- | | |
|--|----------------------|
| 18. Palpus in both sexes quite short | 19. |
| Palpus moderate to long, especially in the ♀ | 20. |
| 20. Face and femora smooth; both wings with M ¹ stalked or at least connate | 20A. |
| Face rough-scaled, femora hairy, both wings with M ¹ widely separate at origin | <i>Iulops</i> . |
| 20A. Antenna in both sexes pectinate (or in ♀ sometimes serrate), build robust, scaling thick, forewing with SC ¹ from cell | <i>Eucrostes</i> . |
| Antenna in both sexes simple, build slender, scaling thin, forewing with SC ¹ stalked | <i>Androzeugma</i> . |

109. *Androzeugma hapala* spec. nov.

♂ ♀, 22–27 mm. Face and upper side of palpi orange; vertex and antenna pale yellowish; occiput green. Thorax and abdomen green above, the latter with yellow dorsal line. Foreleg reddish orange above and on inner side.

Wings whitish green, closely irrorated with blue-green, the resultant tone about as in *Xenochlorodes nubigena* Woll.—*Forewing* with costal edge pale yellowish; lines creamy whitish; first line very indistinct, from costa before one-fourth, oblique outwards to behind M, then bent and falling nearly vertically on hindmargin; postmedian line finely dentate, almost parallel with termen; cell-spot very small, yellow; fringe yellowish.—*Hindwing* similar, without first line.

Under-surface paler, unmarked; costal edge of forewing yellowish.

Zungern, Northern Nigeria, 4 ♂♂, April 21, 1911 (type), May 15–18, 1911, November 17, 1911, 1 ♀, April 27, 1911 (Scott Macfie); N'Gami Country (F. D. Lugard), 1 worn ♂; all in coll. Brit. Mus.

110. *Allochrotes curvilinea* (Prout).

Omphacodes curvilinea Prout, *Gen. Ins.* 129, p. 221 (1912).

I find this species has only two spurs on the hindtibia, thus not an *Omphacodes*. It probably may represent a new genus, the facies being altogether unlike that of *Allochrotes*; but as the ♂ is still unknown and the ♀ presents no very salient characters, it must in the meantime be referred here.

NOTES ON PALAEARCTIC ZYGAENIDAE.

By DR. K. JORDAN.

IN *Rom., Mém. Lép.* iii. p. 170 (1887), Dr. O. Staudinger described a new species of Zygaenid from Amurland for which he proposed the new genus *Inope*, mentioning as chief distinguishing characters that veins 7 and 8 of the forewing are stalked, the hindtibia bears two pairs of spurs, and the ♀-antenna is quite smooth. A second species of *Inope* from the same district was described as *I. impellucida* by Graeser in 1888 (*Berl. Ent. Zeits.* 32, p. 108), who also described another semitransparent Zygaenid without markings as *Northia ulmivora*, l.c. p. 107. When writing the descriptions of the Palaearctic Zygaenids for Dr. Seitz's *Macrolepidoptera of the World*, I was not acquainted with these three species, and, as all three were said by Staudinger and Graeser respectively to have two pairs of hindtibial spurs, I united them under the generic term *Inope* Staud. (1887), adding the rider under *Clelea* that the species of *Inope* might possibly belong to *Clelea*.

Herr R. Püngeler has been so kind as to send me for examination from his rich collection some specimens of the above species, which confirm my doubt as to the validity of *Inope*, though only partly in the anticipated direction.

The statements as to structure in the original description of *Inope heterogyna* are not all correct. The hindtibia bears only one pair of spurs, not two pairs, and the ♀-antenna is distinctly dentate, but the last two subcostals of the forewing